

CITY OF GREENFIELD MASSACHUSETTS

FIRE DEPARTMENT

(\$10,000 over priced guide to things that we already knew and Privates and have been telling the Administration for years.)

(List of things that are good for us and may not be so good for you.)

(Things that may work in the metropolis of Fairfax County but not the sticks of Franklin County.)



STRATEGIC PLAN REPORT

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TABLE OF CONTENTS

Page Number

Acknowledgements.....	3
Background.....	3
Methodology.....	4
Introduction.....	6
Executive Summary.....	8
NFPA Standards	10
SWOT Analysis	10
Department Operations	14
Department Organization.....	26
Written Policies and Procedures.....	30
Training	33
Health and Safety	37
Fiscal Management	40
Personal Protective Equipment.....	43
Apparatus.....	46
Fire Station	49
Pre-Incident Planning	52

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The City of Greenfield and, in particular the members and leadership of the Greenfield Fire Department, are to be commended for undertaking this project. It was said many times during this process that going through such a procedure could be “painful”. It is much easier to sit back and continue to do business in the manner it has always been done, than to undertake the sometimes difficult practice of inward scrutiny.

“If you always do what you’ve always done, you’ll always get what you’ve always gotten.”

BACKGROUND

The City of the Town of Greenfield (hereinafter referred to as the City or City of Greenfield) is a mostly residential community, located in Franklin County at the cross roads of Interstate 91, Massachusetts Route 2, and the Mohawk Trail in Western Massachusetts. The city is located approximately 100 miles west of Boston. The total land area of Greenfield is just less than 22 square miles. Census data indicate a population of approximately 19,000 people with a population density of 860 people per square mile.

The City has a small, but densely developed, downtown area with a mixture of commercial, public and residential buildings. In addition, significant target hazards exist in the response area including a nine story high rise building housing senior citizens, numerous strip shopping centers, several large “box” stores, a community college, subsidized housing units, an industrial park, and various private and public school buildings. A railroad right-of-way, providing freight rail service, and a major interstate highway also pass through the locale.

The City of Greenfield operates under a city council and mayoral form of government. A public safety commission is also charged with administration and oversight of the operations of the Police and Fire Departments. The fiscal year 2006 Fire Department budget was \$1,575,000. This budget is entirely funded by tax revenues.

The Greenfield Fire Department provides fire prevention inspections and permits, fire and safety education, fire suppression and rescue operations, hazardous materials response, and first responder emergency medical services. The Fire Department operates out of one fire station with a career staff of 29 individuals and a call force staff of 10. The Department operates four engine companies, one aerial ladder, one heavy rescue, an inflatable boat, a brush unit, a command vehicle, a communications vehicle, and other support vehicles.

Data provided by the Department indicated that they responded to 1,658 emergency incidents in calendar year 2005. Included in these incidents were 184 fires of all types, 383 emergency medical responses, and 86 motor vehicle accidents. One civilian fire fatality, five civilian fire injuries, and 28 firefighter injuries were reported in 2005.

The most recent Insurance Services Organization (ISO) rating in November 2004 was a 4/9. The ISO rating is a third-party assessment that helps to determine the fire insurance premiums. In setting fire insurance rates for a community, the ISO periodically assesses the communities' fire defense capability, which includes details about the fire department (amount and type of apparatus, training of personnel, etc.), access to a municipal water supply, the ability for effective communication during an incident, building codes and other factors. The rating scale goes from 1 (the best) to 10 (the worst). In the rating above, the "4" represents the rating applied to properties within 1,000 feet of a fire hydrant, while the "9" represents the rating for those properties located more than 1,000 feet from a hydrant.

METHODOLOGY

In the fall of 2005, Traditions Training LLC was selected to perform an analysis and assist in the development of a strategic plan for the City of Greenfield Fire Department. This report contains a synopsis of the current practices of how Greenfield delivers fire and emergency medical services. Where appropriate, it provides suggestions for strategic goals along with some operational recommendations to meet these goals.

Typically a fire department strategic plan will have three major components. One component is to develop the expected level of service. The second component is to determine where the fire department is today in meeting the service expectations. Finally a gap analysis, between where the department is, and community expectations, can help set and prioritize goals for the department.

The analysis process started with a series of phone conversations with Chief Cogswell in an effort to collect background data and general information about the Fire Department. The next step was a request for more specific information including:

- The current vision statement, mission statement, and core values of the Fire Department
- Demographic data
- The current, previous, and upcoming fiscal year budgets for the City and Fire Department
- Annual Reports for the City of Greenfield and the Fire Department for the prior two years
- An organizational chart and description of duties for Fire Department personnel
- Community risk management plan
- Fire Department Standard Operating Procedures and Rules and Regulations
- General Orders, Informational Bulletins, and other pertinent policies and procedures
- Operating manuals (i.e. incident management system, personnel accountability, rapid intervention team operations, operations at single family dwellings, operations at highway incidents)
- Data documenting property damage, civilian injuries and civilian deaths from fires for the previous 24 months
- Mutual and automatic aid agreements

Strategic Plan – Greenfield Fire Department

- Wellness and safety programs currently provided
- Vehicle accident reports for the previous 24 months
- Injury reports and data for the previous 24 months
- Response algorithms for all incident types
- Incident activity data for the previous 24 months including, if possible, the time assistance was requested at the 911 communications center, the dispatch time of the Fire Department, the enroute time of apparatus, and the on-scene time
- Apparatus information
- Current apparatus replacement program and budget
- Current menu of services provided to the public
- Current public education programs provided to the community
- Current community outreach programs provided
- Current strategic partnerships with community businesses or organizations
- Training and education schedule for the current year

Much of the information requested was either not available, or does not exist, and while this is not uncommon, it does indicate that improvement is needed in many areas of the Department.

A three day site visit to Greenfield was conducted from November 29th to December 1st, 2005. During this visit an effort was made to meet with as many of the “stakeholders” as possible, who would be involved in the development of a strategic plan for the Department. In addition to Fire Department personnel, this included the Mayor and members of her staff, city council members, public safety commission members, and prominent citizens.

Within the Fire Department, several meetings were conducted with the Fire Chief and his administrative assistant. The Captains, Privates, and Call force personnel of the Department also participated in a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. The site visit also allowed for a brief assessment of the fire station, apparatus, personal protective equipment, and an overview of the response area.

Following the site visit, numerous follow-up telephone conversations were conducted with the Fire Chief, and administrative assistant, to obtain additional information or for clarification. Also during this time frame, recommendations and examples of policies and procedures in use by other fire departments were provided to Chief Cogswell on “critical” issues that were identified during the site visit.

The report that follows will heavily reference National Fire Protection Association (NFPA) standards. The reasoning for this is two-fold. First, NFPA standards are nationally recognized and establish a “standard of care” (see below for an explanation of NFPA standards). Second, referencing a standard eliminates the opportunity for the consultant to suggest “in my opinion” recommendations. The report will cite what the Fire Department’s current practices or procedures are, and then will recommend what changes or improvements should be initiated.

INTRODUCTION

To avoid being directionless, a fire department needs to have a well thought out strategic plan. A number of factors influence the strategic planning process, including available resources, expectations of the citizens and elected officials, and regulatory compliance at both state and federal levels. The International City-Government Association suggests that: “... *fire service managers should design the fire control system on the basis of the communities approved goals and objectives (measured with sensitivity to probability of attainment) that have been established in the political arena ...*”

To ensure that the operation of a fire department meets all the internally and externally established requirements, a process to produce a written plan is important. The plan is the organization’s road map for the future. As such, the plan must be reflected in the department’s budget, as few goals are achieved without funding.

Developing a strategic plan requires creativity and vision; it cannot succeed without top management’s support. These leaders are responsible for maintaining operating efficiency, but they also are charged with adapting the organization to its changing environment. Beyond being involved, it is important for top management to be committed to the planning process and to visibly demonstrate its commitment to the project. Top management should not be working alone. They should be working with all of those who will be affected by the plan, which include stakeholders, labor union members, members of the community, and elected officials.

In *Principle-Centered Leadership*, Steven Covey writes, “Involvement is the key to implementing change and increasing commitment... If we are not involved, we will likely resist change.” Regardless of the size of the organization, soliciting participation from stakeholders, both internal and external is critically important. A guiding principle in effective planning is that when decisions are going to be made that have the potential to impact personnel, the personnel impacted should be included in the decision-making process.

The impact of decisions related to planning is not exclusive to internal department members. Stakeholders external to the organization must also be considered and consulted during the planning process. External stakeholders include elected officials, boards of commissioners, appointed officials, union officials, and citizens. Consequently, the principle would be that when decisions are going to be made that have an impact on stakeholders, the stakeholders impacted should be included in the decision-making process. The participation of stakeholders is partially achieved with an analysis of *Strengths, Weaknesses, Opportunities, and Threats* – a SWOT analysis.

A fire department’s operational and long-range goals are only as good as the quality of its planning. To plan properly, leaders must make effective decisions. The management function of planning creates goals, determines strategies for the achievement of goals, and develops plans for the work to produce the desired outcomes. Planning is a continuous, ongoing process that has daily and long-term implications for all aspects of an organization.

Strategic planning is intended to enhance an organization’s ability to think and act strategically. The potential benefits from the process are numerous, although there is no guarantee that they will be realized in practice. These benefits include:

- Increased effectiveness - The organization's performance is enhanced, its mission furthered and its mandates are met. In addition, the organization responds effectively to rapidly changing circumstances.
- Increased efficiency - The same or better results are achieved with fewer resources.
- Improved understanding and better learning - The organization understands its situation far more clearly. It is able to conceptualize, and to establish an interpretive framework that can guide strategy development and implementation.
- Better decision making - A coherent, focused, and defensible basis for decision making is established, and today's decisions are made in light of their future consequences.
- Enhanced organizational capabilities - Broadly based organizational leadership is improved and the capacity for further strategic thought and action is enhanced.
- Improved communications and public relations - Mission, vision, goals, strategies and action programs are communicated more effectively to key stakeholders. A desirable image for the organization is established and managed.
- Increased political support - The organization's legitimacy is enhanced, its advocacy base broadened, and a powerful and supportive coalition developed.

The formal approach to planning asks questions. The planning process provides the answers. Planning questions may include:

- What is our vision and mission?
- What are our near-term goals and objectives?
- What are our organization's long-term goals?
- What strategies will help us achieve our goals?
- What are our organizational priorities?

Shown below is the current mission statement of the Greenfield Fire Department:

The Greenfield Fire Department is organized to provide public safety services to the citizens and visitors of this community. As a team we will strive to minimize losses and suffering through emergency services delivery, public education, and information. We will provide our services and treat those we serve and each other in a manner that is honest, fair, and unbiased, in order to deliver fire prevention, life safety, fire suppression, emergency medical care, and rescue services.

The National Fire Protection Association (NFPA) *Standard for Providing Emergency Services to the Public*, (NFPA 1201), specifies that the fire department, in conjunction with the community administration, should develop and implement a total concept strategic (master) plan. This plan will offer a community-wide balanced and cost-effective fire control strategy that takes into consideration existing conditions and anticipated overall community growth.

The fire department should concern itself with developing its internal operations, and involvement with all other community departments, in planning for anticipated overall community growth. The planning function should encompass examination of any or all aspects of the fire department's activities, both generally and specifically. It should be directed toward improving and maintaining the efficiency and effectiveness of the fire department and a responsive approach to the community's changing needs for service.

The strategic planning process should be designed to evaluate the kind and level of fire risk in a community, and to establish future objectives for minimizing or reducing that risk. The strategic planning process should attempt to project the future fire protection needs of a community for periods of 10 and 20 years. Strategic planning should be utilized to develop a series of criteria to determine the levels of fire risk that will prevail in the community relative to the fire suppression resources to be maintained.

The strategic planning decisions should assist in establishing and justifying the budget for operating the fire department. The governing body should be encouraged to adopt a long-range community plan dedicated to the reduction of life and property loss from fire. Where increased economic efficiency and program effectiveness are prime objectives in choosing between programs, cost/benefit analysis can be used to obtain a ranking of alternative programs and provide the basis for department planning. A method that incurs higher cost might be the most effective, although not the most cost-effective. In the fire service, value criteria should be considered. For example, life safety is valued more highly than physical property.

Planning allows an organization to look at where it wants to go and determine how it will get there. A properly conceived plan recognizes the risks associated with striving for a selected destination and determines the resources needed to successfully arrive at that destination. Good planning allows the organization to build flexibility into its future and to prepare for change. An organization will find itself strengthened when it has a common purpose and a sense of direction.

EXECUTIVE SUMMARY

Many challenges and opportunities lie ahead for both the City of Greenfield, and the Greenfield Fire Department. A significant change in the way that “business is done”, and more importantly a significant cultural change in the Fire Department, needs to occur. The Greenfield Fire Department has endured many years of insufficient funding and has often been overlooked by the City. Potential liability issues are present with many of the current practices.

For change to be effective it must be efficient, timely, and meaningful. For change in the fire service to be meaningful, the Fire Department must embrace its stakeholders and involve them in the implementation of the change. Specifically, for the Fire Department to maximize its resources, it must ensure that the recipients of its products and services, the legislative and executive decision makers, and the delivery agents of the products and services, all provide high-quality input into the process of making changes.

The existing labor-management relationship in Greenfield must undergo a metamorphous, so that the participants cease to be adversaries and become partners. Confrontational-style labor-management relationships are not effective. When labor and management leaders are united, they can improve the Department by combining resources, empowering each other to accomplish common goals, and establish the Fire Department as a professional, focused organization.

In order for the recommendations and suggestions proposed in this report to be successful, all the different parties involved need to “step to the plate”. The previous internal strife and disagreements need to be set aside in order for this plan to succeed. The Fire Department can not provide the

necessary level of service to the community and citizens without the financial support and backing of the City. With that said, the members of the Greenfield Fire Department also need to rise to the challenge, embrace change, and strive to be the best they can be.

The public mostly takes for granted the Fire Department's status as the trusted response resource of first and last resort – public reliance on the local fire department is usually subconscious. At the same time, the expectations and trust of the public can have serious policy and financial implications for government managers and elected officials, as they attempt to deal with the issues of fire protection and emergency medical services.

The local government policy environment for fire protection and emergency medical services is complex and presents several types of pitfalls to avoid and challenges to meet. These range from the risk of complacency, at one extreme, to the danger of legal liability, at the other extreme.

Since the events of September 11, 2001, many citizens, politicians, and city officials who had taken their local fire departments for granted, have developed a new appreciation for the role the fire service plays in their communities. The Fire Department in Greenfield provides critical services to the public and needs to be supported and properly funded to provide these services effectively and efficiently.

Even with the need to change in an increasingly complex world, the Fire Department must not lose its traditional focus. People in need call the fire department, and firefighters arrive to save lives and protect property - a very simple premise and one that should not be lost sight of. It should never be forgotten that ultimately the Greenfield Fire Department exists to serve the needs of the community.

The following issues have been identified and will be discussed more fully in the report:

- The Department is severely understaffed
- The personnel callback procedures are unreliable and potentially dangerous
- The organizational structure of the Department is outdated and ineffective
- Implementation of NFPA Standards is needed to ensure effectiveness and safety
- Emergency response operations are not conducted safely and efficiently
- There is a lack of, and the enforcement of, written policies and procedures
- Emergency incident dispatching is inefficient and not a good use of staffing
- The personnel injury rate is high and there is no safety, health, and wellness program
- The mutual aid system appears to be underutilized and lacks formal written agreements
- Some of the apparatus is potentially unsafe and not adequately maintained
- The fire station has safety and maintenance issues that require repair and renovation
- There is no structured training program and training records are nonexistent or poorly organized
- Accountability and discipline of personnel is lacking
- The feeling of entitlement that exists in some Department personnel needs to be discarded
- Fiscal management policies, procedures and monitoring need modernizing and improving

NFPA STANDARDS

In Massachusetts, compliance with NFPA standards is not legally required. However, complying with these standards has many benefits such as improving service, promoting the safety of firefighters, and lowering liability. Due to the many benefits associated with compliance to NFPA standards they should always be considered in any decision making process. What exactly are NFPA Standards?

Consensus standards are developed by specific industries to set forth widely accepted standards of care and operations for certain practices. Standards are an attempt by the industry, or profession, to self-regulate by establishing minimal operating, performance, or safety standards, and a recognized standard of care. They are written by consensus committees composed of industry representatives and other affected parties.

The NFPA has many standards which affect fire departments. The standards should be followed to protect fire and rescue personnel from unnecessary workplace hazards, and because they establish the standard of care that may be used in civil lawsuits against fire and rescue departments.

In most cases, compliance with NFPA standards is voluntary. However, in some cases, Federal or state OSHA agencies have incorporated wording from NFPA standards into regulations. In these cases, compliance with the standards is mandatory. Regardless of whether compliance with an NFPA standard is voluntary or mandatory, fire and rescue departments must consider the impact of "voluntary" standards on private litigation. In some states, a department may be liable for the negligent performance of their duties.

Even in states that protect rescue workers under an immunity statute, most state laws do not protect fire or rescue departments for grossly negligent acts. Essentially, negligence involves the violation of a standard of care that results in injury or loss to some other individual or organization. In establishing the standard of care for fire and rescue operations, the courts will frequently look to the "voluntary" standards issued by NFPA and other organizations. Although "voluntary" in name, these standards can become, in effect, the legally enforceable standard of care for fire or rescue departments. Accordingly, municipalities and fire departments should pay close attention to applicable standards.

SWOT ANALYSIS

When conducting strategic planning, it is useful to complete an analysis that takes into account not only what the Fire Department is currently doing, but also what industry standards are, and what other similar fire departments are doing as well. To this end, a *Strengths, Weaknesses, Opportunities and Threats* (SWOT) analysis was conducted with the Captains, Privates, and Call Force personnel of the Greenfield Fire Department. Each of these groups participated independently in the analysis, to ensure that they could express their opinions freely and honestly.

The analysis completed with these personnel elicited opinions about the Department's management, operations, facilities, apparatus, wellness and safety programs, and policies and procedures. The analysis helped identify ways to minimize the affects of weaknesses, while maximizing strengths.

The SWOT analysis is an effective way to get every member of the organization involved in the planning process. This is critically important for two reasons. First, involving all members in the planning process ensures that planning is not conducted in a vacuum. Those on the front lines who deliver the Department's services and are closest to the customers, have an excellent understanding of their needs and wants. Second, involving all members creates a feeling of ownership for those who will ultimately be called on to meet the goals and objectives in the Department's plan. The SWOT analysis is a tool to help determine where the Department is today, and where they would like to be in the future.

It is necessary to note that the issues listed below were raised by personnel present at the meetings, and it is common for individuals to have differences in opinion. Therefore an issue considered a perceived strength by one individual, may be perceived as a weakness by another. Listed below are the major issues discussed during the SWOT sessions conducted with each group of personnel.

CALL FORCE PERSONNEL

STRENGTHS

- Experience – been together along time
- Commitment/dependability
- Community service
- Fiscally a good deal!
- Know what our role is
- Many call personnel hired as career

WEAKNESSES

- Decrease in staffing – budget – work commitments
- Department divided
- Training – limited
- Lack of radios on incidents
- Lack of utilization

OPPORTUNITIES

- Increased awareness by the public/City
- Increase fund raising opportunities
- Participate in the budget process more

THREATS

- Career personnel feel threatened
- Money
- Underutilization

CAPTAINS

STRENGTHS

- Do a good job on emergency incidents with limited resources
- Deal with the problem
- Fire prevention – competency in position
- Public education - community outreach/ fire investigations
- Captains – leadership – senior management
- Young – hungry for change
- Regaining (rebirth) of EMS focus and good at it!
- Premiere fire department in Franklin County

WEAKNESSES

- Staffing
- Fire prevention – lack of resources
- Previously had a lack of leadership
- Budget
- Lack of SOPs
- Training
- Training officer
- Discipline – interdepartmental no guidelines or accountability
- Dispatch operations
- Lack of senior management/administrative support
- Civil service is a hindrance for upper levels
- Staff not used effectively
- “The Circle”
- Taxpayers

OPPORTUNITIES

- Expanded role in EMS
- Political action to influence policy
- Improve cooperation with other response agencies
- Combined dispatch
- Training – standardize and create a training officer
- Reorganization – senior management

THREATS

- Budget – flat or decreasing
- General defiance by a minority of members
- Local/State politics – change
- Taxes maxed out

Strategic Plan – Greenfield Fire Department

- Vehicle maintenance
- Aid from volunteer fire departments around Greenfield
- Communications
- Dispatch center
- Fear budget cuts and job security

PRIVATES

STRENGTHS

- Members of the Department
- Get it done!
- Dedication
- Educated members
- Keep moving forward
- Senior management leadership
- Senior management progressive
- Diverse knowledge, skills and abilities
- Low attrition

WEAKNESSES

- Public/political awareness/education
- Preplans
- Training
- Lack of career development
- Staffing
- Low morale
- Organizational restructuring and budget
- Dispatch/communication policies and procedures
- Building maintenance
- Equipment and apparatus maintenance
- Wellness compensation
- Safety
- Coverage and response

OPPORTUNITIES

- Increased public/political awareness/education
- Grants and resources acquisition
- Community partnerships
- Mutual aid training
- Community welfare/outreach
- Enhanced level of EMS delivery

THREATS

- City administration
- Staffing
- Negative public perception
- Increased use of call staff

DEPARTMENT OPERATIONS

There is a fundamental concept of fire risk associated with modern society. Public fire service organizations are expected to reduce the risk within their areas of jurisdiction by taking measures to prevent the outbreak of fires, to limit the extent and severity of fires, to provide for the removal or rescue of endangered persons, to control and extinguish fires that occur within the jurisdiction, and to perform other emergency response operations and delivery of emergency medical services.

The cumulative effects of preventive efforts, risk reduction and control, and fire suppression capabilities result in variable levels of risk to the jurisdictions and their residents.

A key point is to clearly set out the specific services the fire department is authorized and expected to perform. Most fire departments are responsible to and report to a governing body. The governing body has the right, and should assert its authority, to set the specific services and the limits of the services the fire department will provide. It also has the responsibility to furnish the necessary resources for delivery of the desired services. The fire department should provide the governing body with a specific description of each service, with options or alternatives, and an accurate analysis of the costs and resources needed for each service.

Spelling out the specific parameters of services to be provided, allows the fire department to plan, staff, equip, train, and deploy members to perform these duties. It also gives the governing body an accounting of the costs of services and allows it to select those services it can afford to provide. Likewise, the governing body should identify services it cannot afford to provide and cannot authorize the fire department to deliver, or it should assign those services to another agency.

The Greenfield Fire Department should be no different than any other government agency in this respect. It should have the parameters of its authority and services clearly defined by the governing body. Legal counsel should be used to ensure that any statutory services and responsibilities are being met.

Perhaps the most important NFPA standard referenced and discussed in this report is NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2004 Edition)*. This NFPA standard is often considered to be the performance measure and “benchmark” for fire departments.

NFPA 1710 contains the minimum requirements relating to the organization and deployment for firefighting, emergency medical and special operations. This standard also contains minimum requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning.

This standard addresses the strategic and system issues involving the organization, operation, and deployment of a fire department, but does not address tactical operations at a specific emergency incident. The purpose of this standard is to specify the minimum criteria addressing the effectiveness and efficiency of protecting the citizens of the jurisdiction, and the occupational safety and health of fire department employees.

The standard includes minimum requirements that are intended to provide effective, efficient, and safe services that operate on a sound basis to prevent fires and reduce risk to lives and property, to deal with incidents that occur, and to prepare for anticipated incidents. It sets minimum standards considered necessary for public fire protection by career fire departments. It addresses the structure and operation for providing these services.

It is very strongly recommended that the City of Greenfield and the Fire Department strive to meet the requirements addressed in NFPA 1710. Many of the items addressed below, are discussed in detail in this Standard.

The City and Fire Department should maintain a written statement or policy that establishes the following:

- Existence of the Fire Department
- What services the Fire Department is required to provide
- The basic organizational structure
- The expected number of Fire Department members
- The functions that Fire Department members are expected to perform

The Department organizational statement should provide service delivery objectives, including specific response times for each major service component (i.e., fire suppression, EMS, special operations, water rescue) and the percentage of responses that need to meet these objectives.

The Department should establish the following response time objectives:

- One minute for turnout time
- Four minutes or less for the arrival of the first arriving engine company at a fire suppression incident, and/or 8 minutes or less for the deployment of a full first alarm assignment at a fire suppression incident
- Four minutes or less for the arrival of a unit with first responder, or higher level, capability at an emergency medical incident

The Department should strive for not less than 90 percent for the achievement of each of these response time objectives. The Department should evaluate its level of service and deployment delivery and response time objectives on an annual basis. The evaluations should be based on data relating to the level of service, deployment, and the achievement of each response time objective in each geographic area within the response district.

Strategic Plan – Greenfield Fire Department

Two of the critical components in this standard are response times and staffing levels. The service delivery requirement is intended to have a fire department plan and situate its resources to consistently meet a 4-minute initial response and an 8-minute full alarm response. Department operations should be organized to ensure that this capability includes the personnel, equipment, and resources to deploy the initial arriving company, the full initial alarm assignment, and additional alarm assignments.

A sufficient number of on-duty personnel are required for effective firefighting performance relative to the expected fire-fighting conditions. These numbers should be determined through task analyses that take the following factors into consideration:

- Life hazard to the populace protected
- Provisions of safe and effective firefighting performance conditions for the firefighters
- Potential property loss
- Nature, building configuration, hazards, and internal protection of the properties involved
- Types of fireground tactics and evolutions employed as standard procedure, type of apparatus used, and results expected to be obtained at the fire scene

The quote that follows is from *Managing Fire and Rescue Services*, published by the International City/County Management Association. *"The Fire Department's organizational mission is to protect life and property from fire. Accordingly, the characteristics of fire influence virtually all aspects of the Department: the location of fire stations, the vehicles and equipment used, and staffing practices."*

The staffing figures shown in the table below were provided by the Fire Department. It is very important to remember these staffing levels require that one of the on-duty personnel also function as the Department's radio dispatcher. For example, when four firefighters are shown as working, only three are available to immediately respond from the station on apparatus.

Staffing per shift 2004-2005

DAY SHIFT 04	NIGHT SHIFT 04
July 1- Dec. 31	July 1- Dec. 31
4 Firefighters	4 Firefighters
50	28
5 Firefighters	5 Firefighters
66	74
6 Firefighters	6 Firefighters
41	63
7 Firefighters	7 Firefighters
20	15

DAY SHIFT 05	NIGHT SHIFT 05
Jan 1- Dec 31	Jan 1- Dec 31
4 Firefighters	4 Firefighters
105	76

Strategic Plan – Greenfield Fire Department

5 Firefighters
132
6 Firefighters
99
7 Firefighters
29

5 Firefighters
132
6 Firefighters
136
7 Firefighters
21

Response times and adequate staffing levels are the key component in controlling fires quickly and effectively. The current staffing levels of the Greenfield Fire Department are inadequate and dangerous for both the citizens and firefighters. The response time for providing sufficient personnel on the incident scene is excessively long.

The current procedure for calling back off-duty personnel is unreliable and time consuming. Currently, if personnel respond to an incident and need additional assistance, or if a subsequent emergency incident comes in, the secondary response times will be greatly extended and staffing levels may not be adequate.

The information (in italics) below on response times for 2005, was submitted by the Greenfield Fire Department:

The response times range from one to twelve minutes, with the average response time from receipt of alarm to arrival on scene being four minutes. This figure was acquired by the totaling of incident response times and dividing by the number of responses used. This data was collected over a three month timeframe. It must be noted that this receipt of alarm timeframe is from when the Fire Department receives a ring down from the 911 enhanced system, so a caller would have already had the initial call answered by a 911 dispatcher, who then determines which agency (fire, police, ambulance) should respond and then rings down the appropriate agency. The Firefighter logs the time of the receipt of alarm from the time recorder on the Watch Desk. Time is then recorded as to arrival time by the same time recorder. It should also be noted that these response times ranged from one (1) to thirty-eight (38) minutes.*

**The thirty-eight (38) minute call occurred during the flooding in the Fall of 2005. This Department responded to over 100 calls in a twelve hour period, while also providing evacuation services.*

Based on the limited data provided by the Fire Department, the average response time to emergency incidents in 2005 was four minutes. Because of the current dispatching process, the short data collection time period, and the method of manually recording the response and on scene times, the average response time validity could be questioned.

The Fire Department also provided the following information (in italics) concerning “secondary” response times and staffing levels. *The following are response times in which additional apparatus was requested to an emergency scene. This additional apparatus response occurred after callback firefighters returned to the firehouse for that response. The average response time from the initial call for the return of callback personnel to then respond with additional equipment is 19 minutes. These incidents have an initial response time of 4 minutes. We ensure that no one individual*

responds alone on the callback situations UNLESS it is necessary for the piece to get there. The Tower to set up for rescues, the Rescue is set up for extrication etc., in those cases the firefighters already on scene drop everything and go to that priority. The average number of members responding on the additional response after callback is 2.

Response times are calculated differently depending on the jurisdiction. In many places, response time is calculated from the time the call is received at the fire station to the time the first unit arrives on scene. However, this does not include the time required for the call to be processed at the Public Safety Answering Point (PSAP), which is usually between 50 and 60 seconds. In Greenfield the call is initially received and processed by a Police Department call-taker, who then “rings-down” with the pertinent incident information to the fire station.

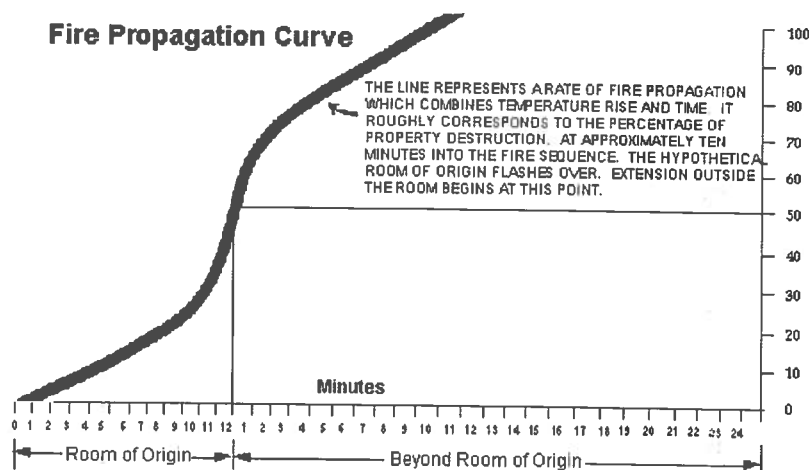
The broader definition of response time, and the one recognized nationally, is that response time is the period starting at the time the call is received at the PSAP, and ending when the first properly equipped and adequately staffed units arrive on the scene. Given that it may take three-quarters of a minute, or longer, to process a call and dispatch responders, the reaction time of the firefighters and the driving or travel time become tremendously important.

The rapid growth and spread of fires involving ordinary combustibles has been well documented in laboratory tests. This situation is a reoccurring challenge to firefighters as they respond to calls. The critical difference between a small, easily controlled fire, and a large fire that threatens to destroy an entire building, is time. Time is also a big factor in saving lives on emergency medical incidents, because once respiratory and cardiac functions cease, four to six minutes is as long as a person can survive without intervention and resuscitation. Thus, response time for fire departments is a critical element in the main mission.

When a fire has adequate fuel and oxygen, it grows larger and more intense very rapidly. In a private residence, for example, a curtain blown into the open flame of a candle can burn intensely enough for heat and smoke to spread quickly throughout the room and into the rest of the house. Within six minutes the room of origin and all its contents may be engulfed in flames. The point at which this occurs is known as “flashover,” and once this point is reached, life inside the structure is in great peril due to the inevitable spread of the fire.

The ability to greatly influence the outcome of a structural fire by adequate fire suppression forces is undeniable and predictable. Data generated by NFPA provides empirical evidence that a rapid and aggressive interior attack can substantially reduce the loss of lives and property associated with structural fires. An early, aggressive, and offensive primary interior attack on a working fire, where feasible, is usually the most effective strategy to reduce loss of lives and property damage.

In the figure below, the bold line represents the rate of fire propagation in an unsprinklered room, which combines temperature rise and time. It roughly corresponds to the percentage of property destruction. At approximately 10 minutes into the fire sequence, the hypothetical room of origin flashes over. Extension outside the room begins at this point.



Consequently, given that the progression of a structural fire to the point of flashover generally occurs in less than 10 minutes, the two most important elements in limiting fire spread are: (1) the quick arrival of sufficient numbers of personnel, and (2) the necessary equipment to attack and extinguish the fire as close to the point of its origin as possible. Fires that “flashover” require significantly larger resources from, and place additional hazards on, a fire department. Considering these facts, many fire departments try to have the first unit arrive on the scene before flashover occurs.

What is an acceptable response time then? Many fire departments have adopted four minutes for the first unit to be on the scene and eight minutes for the arrival of a full alarm assignment. **It is strongly recommended that to effectively control fires and other emergencies, the Greenfield Fire Department promptly respond to emergency incidents with adequate personnel and equipment.**

The Fire Department should strive to provide for the initial arrival of an engine company within a four minute response time, and a full alarm assignment with an eight minute response time to 90 percent of the incidents. The personnel on the initial arriving unit should have the capability to implement an initial rapid intervention crew (IRIC).

The initial full alarm assignment should provide for the following:

- Establishment of incident command outside of the hazard area for the overall coordination and direction. A minimum of one individual should be dedicated to this task.
- Establishment of an uninterrupted water supply. The water supply will be maintained by an operator to ensure an uninterrupted water flow.
- Establishment of an effective water flow from two handlines. Each of these attack and backup lines should be operated by a minimum of two individuals to effectively and safely maintain the hoselines.
- One support person for each attack and backup line to provide hydrant hookup and to assist in line lays, utility control, and forcible entry.

- A minimum of one victim search and rescue team. Search and rescue teams consist of two individuals.
- A minimum of one building ventilation team. Ventilation teams also consist of two individuals.
- If an aerial device is required for the operation, one person is needed to function as an aerial operator, who must maintain control of the aerial device at all times.
- Establishment of an IRIC consisting of two properly equipped and trained individuals.

It is important to note the need for the establishment of the initial rapid intervention crew (IRIC). The establishment of this IRIC does not, and cannot happen, when the Fire Department responds with less than adequate personnel. It was reported that the Fire Department frequently violates the requirement for establishing a rapid intervention crew, due to the lack of sufficient staffing.

Commonly referred to as the “2-in 2-out” regulation, this important safety requirement comes from the Federal Occupational Safety and Health Administration regulation 29 CFR § 1910.132-§.140: *Personal Protective and Respiratory Equipment*.

The regulation requires that at least two employees must enter a dangerous atmosphere together and remain in visual or voice contact with one another at all times, and that at least two employees are located outside the dangerous environment. According to the regulation, one of the two individuals located outside the hazardous atmosphere may be assigned to an additional role, such as incident commander or safety officer, as long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at the incident. Nothing in the regulation is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled. The requirement for a rapid intervention crew is also addressed in NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*.

The Fire Department should also have the capability for additional alarm assignments. These would provide for additional personnel and services, including water application on the fire, search and rescue, forcible entry, ventilation, salvage of property, accountability for personnel, and support activities for those situations that are beyond the capability of the initial full alarm assignment.

It is also critical to note that when an incident escalates beyond an initial full alarm assignment, or when a significant risk is present to firefighters, the incident commander must upgrade the IRIC to a full rapid intervention crew consisting of four fully equipped and trained firefighters. An incident safety officer should also be designated at all incidents that escalate beyond an initial full alarm assignment, or when a significant risk is present to firefighters, to ensure that a safety system is established.

The NFPA recommended response compliment of personnel and equipment, based on type of risk, is outlined below. These numbers are based on the types of tasks and assignments that must be completed on the emergency scene.

Low Hazard Occupancies

Low hazard occupancies comprise one, two, or three family dwellings and scattered small businesses and industrial occupancies. The recommended minimum response compliment is two

engines, one ladder truck, and other specialized apparatus or equipment as needed or available. Minimum staffing for this type of incident is at least 12 firefighters and a chief officer.

Medium Hazard Occupancies

Medium hazard occupancies comprise apartments and offices, as well as mercantile and industrial occupancies, requiring extensive rescue or firefighting forces. The recommended complement for these structures is at least three engines, one ladder truck, and other specialized apparatus or equipment as needed or available. Minimum staffing for this type of incident is at least 16 firefighters and a chief officer.

High Hazard Occupancies

High hazard occupancies comprise schools, hospitals, nursing homes, high-rise buildings, or other occupancies where the potential for a large fire is high. The recommended complement for these structures is at least four engines, two ladder trucks, and other specialized apparatus or equipment as may be needed or available. Minimum staffing for this type of incident is at least 24 firefighters and 2 chief officers.

The City of Greenfield has numerous structures in all three of the hazard occupancy classifications described above. Fire suppression capability is an expression of how much firefighting power can be put into action when there is a fire. It includes the amount of apparatus, equipment, and personnel available, the time needed to respond and place equipment in action, the water supply, the strategy and tactics, the level of training, and all of the components that add up to effective fireground operations. For the low, medium and high hazard occupancy fires, every attempt should be made to meet the requirements recommended above.

It is recommended that the Fire Department strive to have a minimum of four personnel on the first piece of apparatus to arrive at every emergency incident scene. Companies whose primary function is to pump and deliver water, and perform basic firefighting functions, including search and rescue, are referred to as engine companies. These companies should be staffed with a minimum of four on-duty personnel.

Companies whose primary functions are forcible entry, ventilation, search and rescue, aerial operations, rescue, utility control, illumination, overhaul, and salvage work, are referred to as ladder or truck companies. These companies should be staffed with a minimum of four on-duty personnel.

It is recommended that the Department plan to increase the Group staffing levels over a period of time. It is recommended that ultimately the Group staffing levels be increased so that a minimum of eight personnel are on duty at all times. This will provide sufficient personnel to staff two companies immediately.

This enhanced staffing level will dramatically increase the level of service delivered to the community and citizens. Additionally, it will provide for more efficient and safer operations. This will allow the Department to respond with sufficient staffing on incidents like building fires, where there are numerous tasks to be performed in a short period of time, and it will also provide for the immediate response in the event of a subsequent call for assistance when one unit is already out on

an incident. This will reduce the need for regularly calling personnel back to work and provide for the more efficient use of the personnel funding component of the budget.

Currently in Greenfield, a rather unique, and extremely dangerous, response policy is in effect on an almost daily basis. Commonly referred to as “The Circle”, this policy allows for a company to be dispatched to an emergency incident, and depending on where the incident is located or the extent of the incident, still be available to respond to a subsequent emergency. This very distinctive and dangerous policy is documented in writing in Greenfield Fire Department Bulletin #1-E - *In/Out of Service*. Bulletin #1-E is shown in italics below.

On routine calls and automatic alarms where the extent of the emergency is unknown, the responding officer will notify the desk person whether or not he will be committed upon arrival at the scene (by reporting whether in-service or not available). If not available, the desk person will then proceed to fill back the shift (officer and three firefighters).

Responding in service shall be restricted to the center of town, bounded by Rocky Mountain, Silver Street on the north, Elm Street including Oak Courts, Albert Avenue, Locust Street, Frederick Road, Forbes Court, Prey Drive, all of West and Phillips Street and Western Avenue on the west, and River Street, Deerfield and Cheapside Streets on the south. When responding outside the above mentioned area, the fill desk person will fill back the shift immediately (officer and three firefighters).

The exception to the above policy will be when an automatic alarm is received from the Hi-Rise at #10 Congress Street. Two firefighters will be automatically called back to the station. If the officer in charge at the scene determines that he is out of service (committed) then the standard callback procedures will take effect.

It is very strongly recommended that this policy cease immediately. It places the Fire Department officer in the very difficult position of having to make a decision regarding whether he will “be committed upon arrival on the scene” or not. During this time frame the officer should be focusing on sizing up the incident scene and formulating a plan of action.

A fire department unit can only be committed to one incident at a time. They cannot be at the scene of one incident investigating or mitigating the situation, and also be available to respond to a subsequent incident. The liability issues associated with such an inappropriate policy are tremendous. This policy also results in the very ineffective use of the overtime budget.

It was also reported that companies are not “allowed” to go outside “The Circle” for training purposes, building or fire inspections, or pre-incident planning. This component of the policy is yet another disservice to the personnel and citizens.

The current system utilized to “call-back” personnel is unreliable, ineffective, and at times from a budgetary standpoint, somewhat misguided. When personnel are called back there is no guarantee when, who, or how many personnel will respond. How can staffing levels and the protection of the community and citizens be left to such ambiguity?

As stated earlier, the average response time for the return of callback personnel to the fire station, to respond with additional equipment, is 19 minutes. The average number of personnel responding is two.

It was reported that when personnel were called back for staffing purposes that they were guaranteed two hours of compensation. It was also confirmed that on many occasions the personnel were only at the fire station for a short period of time and then “released”. In the current agreement between the City of Greenfield and IAFF Local 2548, Article 11 *Wages and Overtime*, states that “When an employee is called back to work due to an emergency call, he shall be guaranteed a minimum of two hours of overtime from the time he punches in, during which time he shall be expected to remain on duty unless specifically relieved by the officer in charge.” The current practice of “releasing” called back personnel in less than two hours is, in certain situations, fiscally inappropriate for the Fire Department, and more importantly, unfair to the taxpayers of Greenfield.

It is recommended that if personnel are called back to work during normal business hours that they stay at the station and work for two hours. There are numerous tasks and projects that these individuals can work on and complete during this time frame (pre-incident plans, station and vehicle maintenance, public education programs, etc). If personnel are called back after normal business hours the decision to relieve them from duty should be up to the discretion of the officer in charge. It is understood that these individuals may be called back at all hours and they should not be expected to stay at the station in the middle of the night if they are not needed.

In October of 2005, the Fire Department established a new alarm card policy. This policy established a “working fire” response for those incidents that required additional personnel and equipment, but did not warrant a full 2nd alarm assignment. This new policy should address deployment issues for many of the incidents that the Fire Department responds to.

A personnel callback procedure for occasional large or significant events, (i.e. multiple alarm fires or the recent flooding that occurred in 2005) is a different situation. It is recommended that the Fire Department establish a separate procedure for addressing these types of situations.

Currently the Fire Department has a call force component to provide supplemental staffing. Call force staffing for the years 2004 and 2005 is as follows (information in italics provided by the Fire Department): *January 2004 through January 2005 – 12 members; February 2005 through June 2005 – 11 members; July 2005 to present – 10 members. The average number of call force personnel responding when requested is six.*

If the City of Greenfield intends to continue with a call force program, these personnel should be more effectively utilized. It is recommended that the current usage and participation of call force personnel in Department operations be reviewed, and if possible increased.

The recruitment and retention of volunteer and call force personnel is a nationwide issue facing the fire service. The declining numbers of personnel is not unique to Greenfield. Time demands and societal issues have taken their toll on the ability of people to volunteer their time. Issues with

training levels and the cost of this training are also significant factors, and again are not exclusive to Greenfield.

As stated in another section of this report, regular and appropriate training for these individuals is critical. Preferably the call force personnel should be trained to the same level as the career staff, and be expected to complete the same assignments and tasks. It is recommended that if the call force personnel are not trained to the same level as the career firefighters, and cannot perform all the duties assigned to the career personnel, then very clear written policies and procedures should be developed outlining what duties and tasks they are expected and allowed to perform. This is a critical safety and liability issue that must be clearly communicated to all personnel.

The possibility of a fire, or other emergency situation, overwhelming local capabilities, or simultaneous incidents occurring, should always be considered. In order to use all available resources as effectively and efficiently as possible, many municipalities and fire departments utilize automatic and mutual aid agreements with neighboring jurisdictions to provide for the necessary amount of staffing and equipment. In Greenfield this does not seem to always be the case.

Mutual and automatic aid agreements establish policies and procedures for requesting and dispatching help between fire departments, so that each party will know what is expected from the other. The primary difference between mutual aid and automatic aid is when the resources are sent. In automatic aid agreements, an immediate joint response between the neighboring departments occurs without a specific request for resources. In a mutual aid agreement, the jurisdiction with the emergency incident has to request assistance from a neighboring department.

It is recommended that the City and Fire Department review and formalize their mutual and automatic aid agreements. Regardless of the extent of mutual or automatic aid agreed to or provided, these agreements should be in writing and address issues such as liability for injuries and deaths, cost of service, authorization to respond, staffing levels, equipment and resources to be made available, and the designation of the incident commander.

Preferably the SOPs and training of personnel from all the various fire departments in mutual aid and automatic aid agreements should be comparable, to provide a safe and effective firefighting force and to ensure uniform operations. All the departments responding should have radios that allow personnel to communicate with the incident commander, the other units, and personnel operating on the emergency incident.

In addition to the items previously recommended, the Fire Department's organizational statement should set forth criteria for the various types of special operations response activities the Department is required and/or expected to respond to. It is recommended that the Department establish a special operations response plan and SOPs that specify the roles and responsibilities, and the authorized functions of personnel, responding to hazardous materials incidents. Any fire department personnel who are expected to respond to emergency incidents beyond the first responder operations level for hazardous materials response should be trained to the applicable requirements of NFPA 472 - *Standard for Professional Competence of Responders to Hazardous Materials Incidents*.

Federal law requires that all fire departments be trained to respond to hazardous materials incidents at the first responder operations level. Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), known as the Emergency Planning and Right-to-Know Act, established requirements for federal, state, and local governments, and industrial facilities, regarding emergency planning for spills or other releases, community right-to-know, and reporting of hazardous and toxic chemicals.

The organizational statement should also ensure that the Fire Department's confined space response capability include personnel, equipment, and resources to deploy at the confined space operational level as required by the Code of Federal Regulations. Any fire department personnel who are expected to respond to emergency incidents beyond the confined space operations level should be trained to the applicable requirements of NFPA 1670 - *Standard on Operations and Training for Technical Search and Rescue Incidents*.

The organizational statement should also set forth the criteria for the various types of responses during natural disasters or terrorism incidents, weapons of mass destruction incidents, or large-scale or mass casualty events.

It is very important to recognize that if a special operations incident is beyond the capability of the Department, that response personnel are not unnecessarily put at risk. It is recommended that the Department predetermine the availability of outside resources that have a higher level of emergency response capabilities, and the procedures for requesting and initiating their response. The Department should ensure that its operations are limited to performing only those specific special operations functions that personnel have been trained for, and have the proper equipment for.

Currently, the Department responds to a significant number of emergency medical incidents. It is recommended that the minimum level of training for all personnel that respond to emergency medical incidents be at the first responder/AED level. It is recommended that in the future all personnel be trained to the EMT–Basic level.

During discussions with stakeholders and elected officials at the site visit, it was reported that additional development and an increase in the City's population is expected. This proposed development was anticipated to be outside of the existing downtown "core" area, and could result in not only increased demands for service, but also lengthy response times for the Fire Department. If this projection is accurate, it is recommended that the City immediately start considering the need for a second fire station.

Many complex issues are involved in the planning and decision making process of opening an additional fire station. If there is even the remote possibility of the need for expanding fire and rescue services, the time to begin the planning process is now.

Some of the issues that will need to be studied and addressed include:

- Determining the best general area for the station
- Funding
- Staffing

- Apparatus
- Specific site location
- Land acquisition
- Facility design
- Construction

DEPARTMENT ORGANIZATION

Like any organization, fire departments are comprised of people working together in a coordinated effort to achieve a common set of objectives. For a fire department to function effectively it must have an organizational plan that shows the relationship between the operating divisions and the total organization. An organizational plan does not preclude the need for effective leadership; it merely provides the means by which the organization can be managed effectively.

One of the most basic organizational principles is that work should be divided among the individuals and operating units according to a plan. The plan should be based on the individual functions that must be performed, for example, fire prevention, training and fire suppression. The most successful fire departments operate as a team. All of the divisions and sections in the department are equally important in achieving the desired objective – service to the citizens and community.

As a paramilitary organization, fire departments rely heavily on the principle of chain of command. Chain of command is the sequence of authority from upper to lower organizational levels. It defines where authority starts and ends and clarifies the flow of organizational communications. Authority refers to the right to make decisions and take action. It provides formal permission to tell department members what to do, and comes with the understanding of members that they must comply. Authority comes with rank. Inherent with authority is responsibility. Responsibility is the obligation to make decisions and take action.

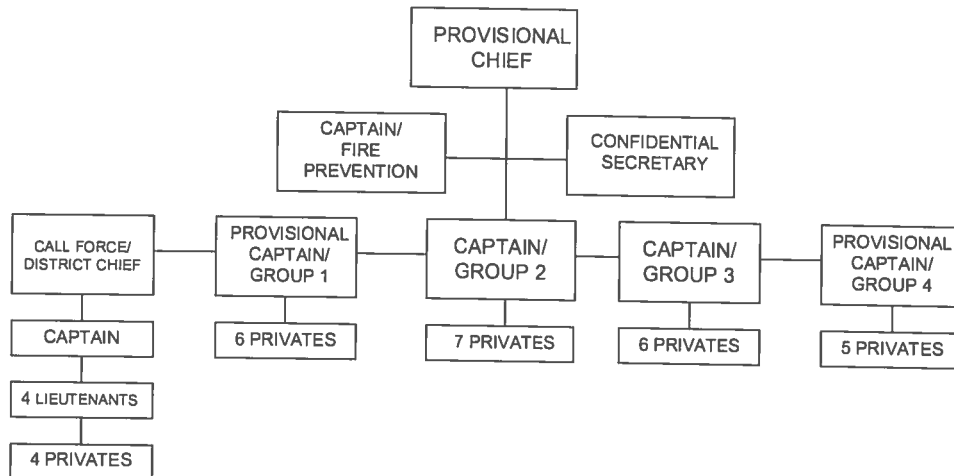
The fire department organizational structure is also based on the principles of unity of command and span of control. Unity of command stipulates that a member is accountable to one supervisor. Accountability is having to answer to someone for performance results. Span of control is the concept that an individual is limited in the number of subordinates that can be supervised.

Another basic, but critical organizational principle, is discipline. Discipline should not be viewed as punishment, but rather setting limits and boundaries for expected levels of performance and then enforcing them. It is critical that the organization provide the direction needed to satisfy the goals and objectives it has identified. Much of this direction will come in the written policies and standard operating procedures previously discussed.

The current organizational structure of the Greenfield Fire Department needs to expand. The Fire Chief, for all practical purposes, does not have any administrative support with the exception of the Confidential Secretary.

The current organizational structure of the Department is shown below.

**GREENFIELD FIRE DEPARTMENT
JANUARY 2006**



It is acknowledged that there are many fiscal challenges and constraints facing Greenfield. The proposed changes recommended here will not, and can not, take place overnight. However, the Fire Department can not be expected to operate effectively and efficiently with the current organizational structure.

It is recommended that the Department reinstate the Deputy Chief's position as soon as possible. This individual would be responsible for the day-to-day operations, training, and health and safety programs of the Department. Having the position of Deputy Chief will allow the Fire Chief to focus his efforts on prioritizing and completing the numerous administrative mandates and tasks required in managing a modern fire department. Also important, the addition of a Deputy Chief will allow for another command level officer.

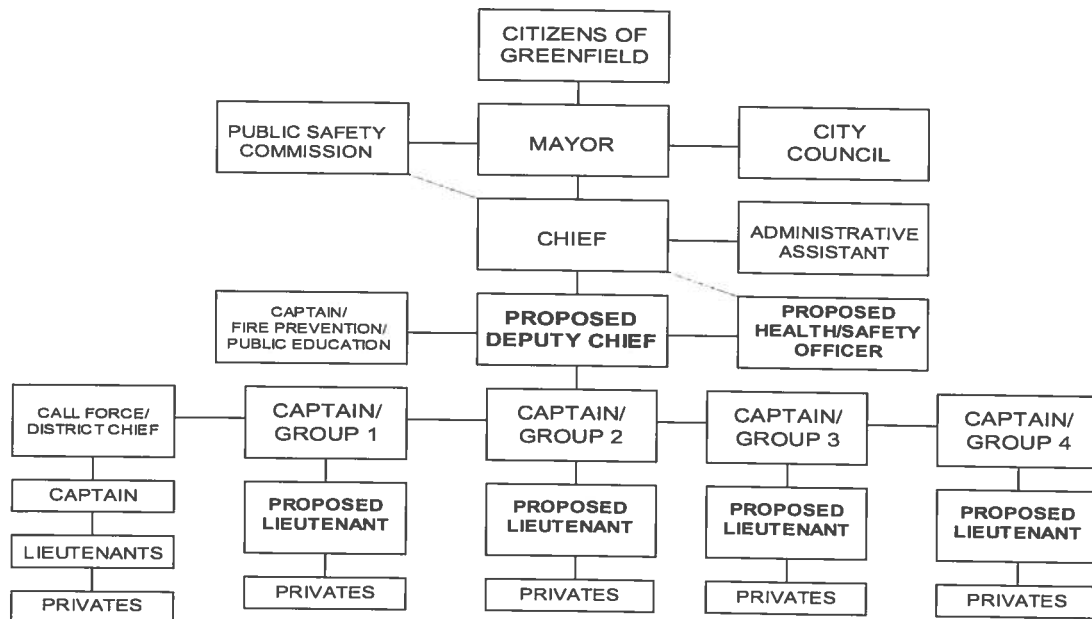
Currently, the Fire Chief is the only command level officer in the Department. It is an unrealistic expectation that Chief Cogswell be available to respond to emergency incidents 24 hours a day, seven days a week. The position of an incident commander on fires, and other significant incidents, is vitally important. A visible and effective command structure is instrumental in ensuring effective and efficient service delivery to the community and citizens, and preventing firefighter injuries and deaths.

It is recommended that the Department establish a Lieutenants position as Group staffing levels increase. This will provide several benefits. First, it will allow for increased supervision and safer operations on the emergency incident scene. As the proposed staffing levels of the Group increase, the Captains will have reached their limit concerning span of control; the addition of another officer in the Group will allow for increased supervision and better accountability.

Another benefit is that it will allow for the development and mentoring of the Lieutenants by a more experienced and knowledgeable officer – the Group Captain. These Lieutenants will be the future leaders of the organization, and a mentoring program, which allows them to obtain more experience as a supervisor and manager, will better prepare them to guide and lead the Department. In the current organizational structure, personnel go from the initial entry level position of firefighter directly to supervising a Group. Creation of a Lieutenants position will also allow for more upward mobility for personnel.

If Department staffing levels continue to expand in the future, strong consideration should be given to establishing a designated Health and Safety officer who would be responsible for management and supervision of all aspects of the Department's wellness and safety programs. It is recommended that this position be at the Captain level.

Below is a proposed Organizational Chart, which includes the above mentioned recommendations to include the positions of Deputy Chief, Captain, and Lieutenant.



Every organization has a culture – some are deliberately cultivated, while others have unintentionally evolved. Culture is the shared values, beliefs, and underlying assumptions of the organization's members. As these members interact with each other, with citizens, and with other departments or agencies, the organization develops a unique attitude – a distinctive way of delivering its services.

Over a period of time, a fire department's culture can drift out of alignment with management or the community, because of changes inside or outside of the department. The culture of the Greenfield Fire Department needs to undergo a significant change. It was reported and perceived that a culture of distrust and entitlement currently exists among some members of the Fire Department.

Changing an organization's culture is a difficult and long-term process. The key to changing the organization's culture is having a vision for the future of the organization, sharing that vision with the organization, and developing a culture that is consistent with the vision. The leadership to change the culture of the organization must start at the top – not just the top of the Fire Department, but the top of the City government also. This includes the City Council, the Public Safety Commission and the Mayor. When providing effective and efficient service to the public by well trained, properly equipped, and healthy firefighters is emphasized by the leadership, these issues will become important throughout the entire Fire Department – this will become the culture of the Greenfield Fire Department.

The City must also acknowledge and accept the responsibility of supporting and adequately funding the Fire Department. A healthy and thriving partnership between the Fire Department and the City must be developed and nurtured. The citizens of Greenfield deserve nothing less.

It is recommended that the current dispatching practices and procedures currently utilized by the Fire Department be discontinued and a combined dispatch center with the Greenfield Police Department be established. This will provide several benefits. First, it should reduce the amount of time needed to process and dispatch emergency incidents. Under the current system, the person assigned as the "dispatcher" has to stay at the fire station to provide radio communications with responding units and personnel. If the proposed system is adopted, this will effectively increase the staffing level by one person per Group, at no additional expense for the City or Department. This will clearly provide for safer and more efficient service delivery to the community and citizens.

The Greenfield Fire Department's Fire Prevention Division's primary responsibility is to prevent fires. Preventing a problem from occurring is much more cost-effective than dealing with it after the fact. Unfortunately, few fire prevention programs and efforts receive the resources and support they need to be effective. To be effective, a comprehensive fire prevention program includes engineering, enforcement, education, and investigation components. Many progressive fire departments have expanded their services to include prevention information and education for losses and injuries that occur from causes other than fires.

The Fire Prevention Division performs numerous vital services for the community and Department including:

- Provides public education and community outreach programs and presentations
- Performs code enforcement activities
- Completes building plan reviews
- Completes fire cause and origin determination investigations
- Completes building and oil burner inspections
- Issues burn permits
- Conducts fire alarm system inspections
- Trains personnel
- Conducts emergency planning activities

Currently, the Fire Prevention Captain also supervises the Department's Fire Communications Division and is designated as the Emergency Operations Center liaison.

It is strongly recommended that funding be allocated to increase the number of inspectors in the Department's Fire Prevention Division. Requests and justification for this increase have been previously submitted in the Department's budget. Increasing the staffing will provide for better service to the community by increasing the number of fire and safety inspections, public education programs, and other related services.

It is recommended that the continued funding, repair, and use of the fire alarm street box and master box systems be further evaluated and closely scrutinized. Most major municipalities phased out these systems years ago.

The master box system could be replaced by a **private sector** fire alarm monitoring system, such as those provided by private security and alarm companies. Most municipalities do not bear the burden of maintaining these systems in privately owned buildings.

Data provided by the Fire Department for 2005 indicates that:

130 Box Alarms were received:

- 5 were working or multiple alarm fires
- 8 street boxes; all malicious false alarms

The remaining 117 Box Alarms:

- 15 from burned or cooking related activations
- 4 from water or steam related activations
- 13 false activations
- 40 unintentional activations
- 45 from building interior malfunctions

If the decision is made to discontinue the use of the street and master box system, it is recommended that the position of the fire alarm technician not be eliminated from the Department, but be reassigned as a firefighter to increase the staffing levels in one of the Groups.

In most municipalities, many of the duties assigned to the fire alarm technician are normally assigned to the Department of Public Works, or another similar agency or department. The money currently budgeted for the fire alarm technician's vehicle, and the annual repair costs and parts for the fire alarm system, could then be utilized for funding other Department priorities.

WRITTEN POLICIES AND PROCEDURES

The primary written policies governing the operation and activities of the Greenfield Fire Department are the Rules and Regulations, Bulletins, and the Agreement between the City of Greenfield and IAFF Local 2548. Many of these current written policies and procedures are out of date and need revising.

As with any organization, rules and regulations and standard operating procedures (SOPs) are needed to govern operations. This policy is especially true for the fire service, due to the hazardous nature of many of the activities, and the need for a clear understanding of expected performance. Every fire department should have rules and regulations that outline performance expectations for its personnel, the standard operating procedures for the department, and disciplinary actions that may be taken for failure to follow these directives. All of these documents should be written and distributed in such a manner as to ensure that all personnel are aware of them.

Many fire departments have a number of different types of written documents to establish their policies and procedures, guide employees in the performance of their duties and responsibilities, and maintain discipline. Examples of these written documents may include:

- Rules and Regulations
- Standing Operating Procedures (SOPs)
- General Orders
- Informational, Safety, and Training Bulletins
- Post-Incident Analyses

Rules and Regulations are generally considered to be absolute directives that are to be strictly followed. An SOP establishes a process that should be followed by all personnel. Deviations from an SOP should be allowed only under extenuating circumstances. A general order is a directive that orders one or more persons, to take some specific action(s). Violation(s) of rules and regulations, SOPs, and general orders, without cause, should be considered a disciplinary matter.

Informational bulletins are published for the general knowledge of personnel. Safety bulletins are issued to serve as references with regard to general and specific safety and health issues. Training bulletins are issued to serve as references with regard to tested and approved methods of performing tasks.

It is highly recommended that all of the Greenfield Fire Departments Rules and Regulations, Bulletins, and any other written policy or procedure, be reviewed, revised, and if needed, developed into the appropriate type of document.

While rules and regulations are an important and needed component of the overall written policies of an organization, many of the items in the Fire Department's current rules and regulations are more appropriate in other documents. As an example, the rules and regulations contain job descriptions that should be separate "stand alone" documents. It is recommended that the Fire Chief work, in conjunction with the City Human Resources Department, to review, revise as required, and move the job descriptions from the rules and regulations to a more appropriate document(s).

The Greenfield Fire Department currently does not have any Standard Operating Procedures. It was reported that Standard Operating Guidelines (SOGs) had previously been

proposed, but they were never established and enforced. It is imperative that the department have SOPs that govern actions and activities. It is very strongly recommended that the Department begin to establish comprehensive SOPs as soon as possible.

The NFPA defines a Standard Operating Procedure (SOP) as “an organizational directive that establishes a standard course of action.” SOPs are written guidelines that explain what is expected and required of Department personnel in performing their jobs. A comprehensive set of SOPs defines in significant detail how the Department intends to operate.

It is highly recommended that the Department establish a committee to assist in developing and writing these SOPs. The SOPs should be prepared for both administrative issues and situations (hiring, equipment maintenance, building inspections, rehabilitation, etc.) and emergency response operations (fire suppression, emergency medical services, hazardous materials response, etc.).

An issue sometimes arises within the fire service about whether to use the terminology “Standard Operating Procedures” or “Standard Operating Guidelines”. Some experts feel that the term “procedures” implies relatively inflexible task steps or instructions, while “guidelines” implies more discretion in performing the job. Since emergency incidents are unpredictable and flexibility is essential, these experts advise fire departments to develop SOGs, thereby reducing the need to identify exceptions, and perhaps even limiting liability due to actions by personnel. Other experts believe the opposite is true, that the term “guidelines” implies too much flexibility and discretion, thus reducing control and increasing the likelihood of mistakes.

Legal proceedings indicate that the terminology is less important than the content and implementation of the SOPs/SOGs. The court system tends to assess liability based on factors such as:

- Systems in place to develop and maintain the SOPs/SOGs
- The compatibility with regulatory requirements and national standards
- Consideration of unique departmental needs
- Adequacy of training and demonstration of competence
- Procedures used to monitor performance and ensure compliance

SOPs should not be confused with pre-incident plans. SOPs address general functions like equipment placement and tactical operations, and they are applicable to all emergency incidents, or at least to a specific category or type of emergency situation. Pre-incident plans are site specific.

SOPs are not intended to duplicate technical information or provide step-by-step instructions for doing the job. The knowledge and skills that personnel need to perform specific job tasks (manage programs, fight fires, provide medical care, etc.) are training functions. SOPs describe related considerations: safety, use of supplies, equipment maintenance, duties and rights of personnel, command structures, coordination with other organizations, and reporting requirements, for example.

SOPs are a vital component of fire service administrative and emergency response operations. The Department cannot operate safely or effectively without a comprehensive set of SOPs, and the accompanying management systems needed to develop, implement, and maintain them.

If the Department fails to develop SOPs, they are at a higher risk for accidents, lawsuits, unnecessary costs, personnel problems, and damage to the Department reputation. It is also important to note that fire departments that respond to incidents involving hazardous materials must develop written SOPs. This is a mandatory federal requirement under the Superfund Amendments and Reauthorization Act (SARA) passed in 1986.

In addition to the SOPs recommended in other sections of this report, the topics listed below are recommended subjects for SOPs:

MANAGEMENT AND ADMINISTRATION

General Administration • Organization • Facilities • Apparatus • Equipment and Supplies • Finance • Training and Education • Discrimination and Sexual Harassment • Health and Wellness Program • Performance Evaluations • Post-Injury Rehabilitation • Employee Assistance Program • Facility Safety • Hazard Communication • Risk Management • Emergency Planning • Mutual and Automatic Aid • Management Information Systems • Records and Reports

PREVENTION AND SPECIAL PROGRAMS

Public Information and Education • Working with the Public • Media Relations • Building Inspections and Codes Enforcement • Design and Plans Review • Residential Inspections • Commercial and Industrial Inspections • Code Enforcement • Record Keeping • Fire Cause and Arson Investigation • Hydrant Maintenance • Other Special Programs

EMERGENCY OPERATIONS

General Emergency Operations • Operating Emergency Vehicles • Safety at Incidents • Communications • Command and Control • Special Operations • Post-Incident Critiques • Fire Suppression • Risk Management • Company Operations • Pre-incident planning • Special Facilities and Target Hazards • Emergency Medical Responses • Patient Disposition and Transportation • Hazardous Materials Response • Hazmat Risk Management • First Responder Operations • Technical Rescue • Technical Rescue Risk Management • Water Rescue Operations • Disaster Operations • Disaster-Specific Procedures • Incident Command • Mayday Situations • Personnel Accountability System

TRAINING

Training is one of the most essential components of a fire and rescue service organization. To accomplish its mission, a fire department must have firefighters, vehicles to respond with, and equipment to use upon arrival. To make a difference, the firefighters must have the knowledge, skills, and abilities to perform the service for which they were called. Additionally, training impacts the ability of firefighters to operate in ways that minimize the potential for injury or death.

Training is a challenge for almost all organizations. It is a sign of commitment of the organization to provide quality service and to ensure the health and safety of its personnel. Effective training will help to achieve the following:

- Quality customer service
- Services that meet professional benchmarks
- Efficient performance
- Effective use of modern technologies
- Safe operations

Fire service training is a continuous process from the date of hiring to the date of retirement. Even fire chiefs have a need for training and continuing education, so they remain current on leadership and management principles, and maintain skills on low-frequency, high-risk tasks, such as technical rescue or hazardous materials incidents.

Historically, the Greenfield Fire Department's training budget has not been funded. As recently as the 2005 fiscal year, no monies were allocated for training. In order to provide the highest quality of service to the community, and to ensure the safety of personnel, providing the funding for regular quality training is paramount to a successful and progressive fire department. The Greenfield Fire Department currently does not have a well structured training program or complete and comprehensive training records and reports.

It is strongly recommended that the City augment the Fire Department training budget to allow for an increased number of personnel to attend basic and advanced classes, courses, and conferences. If the citizens of Greenfield desire knowledgeable and proficient firefighters, then there is an obligation to provide the necessary funding for the training of Fire Department personnel.

It is strongly recommended that all Department personnel be trained to the appropriate NFPA standard for their position in the organization. The NFPA Standards detail minimum job performance and qualification levels for many fire service positions. Federal and state regulations also require specific amounts and types of training. NFPA certification classes are available at the Massachusetts Fire Academy.

The recommendations for training levels for Department personnel are based on the nationally recognized Standards listed below:

- NFPA 1001 *Standard for Firefighter Professional Qualifications*
- NFPA 1002 *Standard for Fire Apparatus Driver/Operator Professional Qualifications*
- NFPA 1021 *Standard for Fire Officer Professional Qualifications*
- NFPA 1041 *Standard for Fire Service Instructor Professional Qualifications*

It is recommended that all Firefighters be trained to the Firefighter II level of NFPA 1001. It is recommended that all Department officers be required to meet the Level I requirements of NFPA 1021 and the Level I requirements of NFPA 1041.

Currently the duties of the “Training Officer” are assigned to one of the Group Captains as an ancillary duty to his day-in and day-out responsibilities. This is not an effective means for ensuring a successful training program. It is recommended that if a Deputy Chiefs position is established, that this individual have responsibilities for department-wide training.

A successful training program includes:

- Planning for the training
- Ensuring the training is conducted safely
- Meeting national, state, and local training standards and requirements
- Recognizing and responding to the particular needs of the Fire Department
- Using the appropriate format for delivering the training
- Establishing a system for training records and reports

It was reported that each of the four Groups conducted training during their work days, but no structured training program was followed. The Captain (or acting officer) decides what the training topic for the Group would be for that particular work day. In order to ensure that all personnel receive regular and effective training, a structured training program should be initiated.

Sufficient time should be spent on training so that regular tests of proficiency are met. Training should be in the form of classroom instruction, practice drills, familiarization inspections, and pre-fire planning. The training officer should furnish the subject matter for the training sessions, so that all personnel in the Department periodically complete training in specified subjects. The training officer should supervise the training program, and review and approve lesson plans prepared by other Department personnel.

Officers should periodically evaluate their personnel to determine if the training is effective and to provide a basis for evaluation of individual performance. Officers should also be evaluating the performance of their assigned personnel during fires and drills to ensure that the individuals are utilizing the techniques covered by the training program. Critiques of operations following fires, and other emergencies, should be conducted to discuss the performance as a team.

Another excellent method of evaluating the competency and performance abilities of personnel is to evaluate them against the criteria in NFPA 1410 - *Standard on Training for Initial Fire Attack*. This standard contains minimum requirements for the evaluation of training in initial fire flow delivery procedures by fire department personnel engaged in structural firefighting. It serves as a standard mechanism for evaluating minimum acceptable performance for hose line and water supply activities during training for initial fire attack. The standard describes methods of evaluation and logistical considerations for basic evolutions that can be adapted to local conditions.

It is also recommended that the Fire Department establish a formal apparatus driver/operator training program. It was reported that promptly “qualifying” individuals to drive was a Department priority due to staffing constraints. It is important that the Department have an extensive and quality apparatus driver/operator program.

Fire apparatus are large, heavy, complicated vehicles, and many drivers have never operated these types of vehicles prior to joining the fire service. It is imperative that no one operates fire apparatus until they have been thoroughly trained. The Fire Department training program should be based on NFPA 1002 - *Standard for Fire Apparatus Driver/Operator Professional Qualifications*.

It was reported during the site visit that it was a goal to have all Department personnel trained to the Emergency Medical Technician Basic (EMT-B) level, to provide a higher level of emergency medical service to the community. This is an excellent goal and is recommended. To meet this goal, certification classes and refresher training will need to be properly funded.

In addition to any mandated federal or state training, it is recommended that an annual training program be established that includes, at a minimum, the following topics covered in both a classroom and practical setting:

Fire Behavior	Rope and knots
Communications	Fire extinguishers
Small tools	Power tools
Hose lines	Aerial operations
Water supply	Pumps and hydraulics
Forcible entry	Blood borne pathogen protection
Ventilation	Protective clothing
Elevator rescue	Self-Contained-Breathing-Apparatus
Boat operations	RIT and mayday operations
Swift water rescue	Safety
Personnel accountability system	Target hazards
Salvage and overhaul	Highway operations
Hazardous materials	Railroad operations
Technical rescue	Arson preservation
Ladders	Apparatus driving and operation

It is recommended that the Fire Department explore having personnel complete “on-line” classes and courses through the National Fire Academy and Emergency Management Institute. These Federal agencies offer a variety of quality courses and classes. This is an outstanding and no-cost mechanism for completing excellent education and training classes. It is also recommended that all officers in the Department apply to attend the “resident courses” offered at the National Fire Academy.

Training reports and certification levels for call-force personnel were not provided. Ideally, call-force personnel should be trained to the same level as the career staff. If call-force personnel are not properly trained and qualified to perform the assortment of tasks required on an emergency incident scene, then they should never be put in a position that would exceed the level of their training. Under no circumstances should any individual be placed in a dangerous environment or situation that they have not been properly trained for.

Call-force personnel should have the opportunity to attend any training session offered by the Department. Additionally, it is recommended that a training schedule be developed specifically for these personnel with the subject matter, dates and times, designated and posted at least one month ahead of time. Training should be scheduled for evenings and weekends to allow for as much participation by these personnel as possible. Call-force personnel should be required to complete a minimum amount of training annually to be considered “active”.

When training records and reports were requested for career personnel, the Fire Department reported that accurate records were not available. It was also reported that the Fire Department was in the process of computerizing these records and reports. Training records should be organized, summarized, easily accessible and reproducible.

Training records should also document the correlation between training standards and training received. It was very difficult to determine the status of training for most members of the Department, or how the Department had organized its training records.

The importance of maintaining accurate and complete training records cannot be overemphasized. Maintaining accurate and complete training reports and records is also important from a legal, insurance, and accreditation standpoint. Training records from fire departments have been called into court during legal disputes to substantiate or invalidate the training of department personnel. It is recommended that the Fire Department develop an SOP that follows NFPA Standard 1401- *Recommended Practice for Fire Service Training Reports and Records*. This standard is an excellent reference document to assist in compiling and maintaining quality training records and reports.

Health and Safety

The most vital resource of any fire department is its personnel. Due to the hazardous nature of the occupation, methods to reduce the risk of occupational injury, illness, and exposures to communicable diseases, are necessary.

Annual reports repeatedly indicate over 100 line-of-duty deaths and 100,000 occupational injuries and illnesses among career and volunteer fire fighters. Another concern is fire fighters who experience disabling injuries or develop occupational diseases and conditions that often have debilitating or fatal results, forcing these personnel to leave their fire service activities. There is an increased risk of respiratory problems and heart disease in fire fighters, and emerging evidence of a link to some cancers, and other conditions related to occupational exposures to carcinogens, toxic products of combustion, and hazardous materials.

The Greenfield Fire Department currently does not have any type of health, safety, and wellness program for its personnel. The Department has no designated health and safety officer.

A review of data provided by the Fire Department indicated that there were 28 firefighter injuries in 2005. It is important to note that while there are numerous factors to consider when evaluating injury data, this number of injuries appears to be excessive for a Department the size of Greenfield's and for the number of emergency incidents responded to by the Department.

According to information received during the site visit, Occupational Health and Safety Administration (OSHA) regulations are not applicable to public employees in Massachusetts. The City of Greenfield is exempt from OSHA regulations by choice as a municipality. The City is self-regulated through protocol policies and procedures.

It was reported that personnel are provided with a physical examination during the hiring process, but are not given a physical examination for the rest of their careers. There is no mandatory

physical fitness program in place. Preventive vaccinations for personnel were given at one time, but no accurate records were available indicating who had received vaccinations and when. It was reported that an incident scene safety officer was appointed only when staffing allowed.

It is very strongly recommended that the City provide funding for the establishment of a comprehensive health, safety and wellness program based on NFPA 1500 - *Standard on Fire Department Occupational Safety and Health Program*.

NFPA 1500 establishes minimum standards for fire service occupational safety and health programs. It applies to all aspects of the workplace, including incident scene and non-emergency operations. The Standard requires the Department to develop a comprehensive written risk management plan and an occupational safety and health program; designate a safety and health officer; appoint a safety and health committee; use incident command, personnel accountability, and safety systems at incidents; establish written SOPs; and maintain a data collection system and permanent record of job-related accidents, injuries, illnesses, and exposures.

Among the requirements of the Standard are:

- Having a risk management plan and an occupation safety and health policy
- Appointing a fire department safety officer
- Establishing an occupational safety health committee
- Maintaining records on all job-related incidents
- Training personnel to perform their assigned duties safely
- Ensuring that personnel maintain minimum levels of health and fitness
- Properly specifying, maintaining, and repairing all vehicles, and training drivers
- Using and maintaining protective clothing and equipment
- Applying an incident management system for emergency operations
- Ensuring that the fire station complies with all applicable health, safety, building and fire codes
- Medically evaluating and certifying personnel
- Providing an employee assistance program

It is recommended that the Department establish the position of a Health and Safety Officer, or in the interim, assign these crucial duties to an existing officer. The designated individual should meet the requirements outlined in NFPA 1521 - *Standard for Fire Department Safety Officer*. This standard contains minimum requirements for the assignment, duties, and responsibilities of Health and Safety Officers and Incident Safety Officers. The officer should also meet the requirements established in NFPA 1021 - *Standard for Fire Officer Professional Qualifications*.

The qualifications and authority of both positions are also described in the Standard. The functions of the position are defined in relation to risk management, safety program rules and SOPs, training and education, accident prevention and investigation, records management and data analysis, apparatus and equipment, facility inspection, health maintenance, infection control, critical incident stress management, and post-incident analysis.

The health and safety officer should develop corrective recommendations that result from injury or accident investigations. They should also develop accident and injury reporting and investigation procedures, and should periodically review these procedures for revision.

It is recommended that the Department follow the guidelines in NFPA 1561 - *Standard on Fire Department Incident Management System* for managing emergency incidents, personnel accountability and incident rehabilitation. A review of firefighter injuries and fatalities frequently points out that the lack of an effective command system is a leading factor in the injuries and fatalities. This standard establishes a generic structure for the coordination and management of emergency incidents to help ensure the health and safety of emergency responders. It requires the adoption of an incident management system for command and control of all emergency incidents and training exercises. The standard also requires that the Department implement a personnel accountability system and address incident rehabilitation.

It is further recommended that the Department immediately begin to develop, prioritize and write SOPs concerning occupational health and safety for Department personnel. These SOPs should be continuously evaluated and updated to ensure that the procedures remain current and address changing policies and the needs of the community and Department.

It is recommended that the Department develop and adopt a comprehensive written risk management plan. The risk management plan should cover the risks associated with the following:

- Administration
- Facilities
- Training
- Vehicle operations, both emergency and non-emergency
- Protective clothing and equipment
- Operations at emergency incidents
- Operations at non-emergency incidents
- Other related activities

It is recommended that the Department adopt an official written occupational safety and health policy that identifies specific goals and objectives for the prevention and elimination of accidents and occupational injuries, exposures to communicable disease, illnesses, and fatalities.

The Fire Department should ensure that records on the following are maintained:

- Periodic inspection and service testing of apparatus and equipment
- Periodic inspection and service testing of personal safety equipment
- Periodic inspection of Fire Department facilities

The Fire Department should immediately establish an SOP that states that personnel who are under the influence of any alcohol or drugs shall not be allowed to participate in Fire Department operations, or other duties, at any time, under any circumstances.

It is highly recommended that an SOP be established that requires a minimum of four individuals at any incident, where a crew will be entering a potentially hazardous environment. This would consist of two individuals working as a crew in the hazard area, and two individuals present outside the hazard area available for assistance or rescue if needed.

These personnel are responsible for maintaining constant awareness of the number and identity of personnel operating in the hazard area, their location and function, and time of entry. The standby personnel shall remain in radio, visual, or voice communication with the crew.

It is recommended that the Department develop an SOP that outlines a systematic approach for the rehabilitation of personnel operating at emergency incidents. The SOP should be in accordance with NFPA 1561. Incident scene rehabilitation should ensure that at least basic life support care is available for Fire Department personnel.

The Fire Department should establish an SOP that requires a post-incident analysis of significant incidents, or those that involve serious injury or death to a firefighter. The analysis should include a basic review of the conditions present, the actions taken, and the effect of the conditions and actions on the safety and health of personnel.

The Department should develop a SOP that specifies physical performance requirements for personnel who engage in emergency operations. Personnel who engage in emergency operations should be annually evaluated and certified as meeting the physical performance requirements specified in NFPA 1583 - *Standard on Health-Related Fitness Programs for Fire Fighters*. Personnel who do not meet the required level of physical performance should not be permitted to engage in emergency operations.

The Fire Department should establish and provide a health and fitness program that meets the requirements of NFPA 1583. Such a program would enable personnel to develop and maintain an appropriate level of fitness to safely perform their assigned functions.

Chief Cogswell has been provided with guidelines and information on establishing a health and wellness program specifically designed for small and medium sized fire departments. This excellent document was the result of a joint collaboration between the International Association of Firefighters and the International Association of Fire Chiefs. The wellness program is designed to fit the needs of firefighters, and written by a committee representing both labor and management.

Fiscal Management

In order for the Fire Department to carry out its mission, and achieve its objectives effectively and efficiently, the allocation of financial resources is crucial. Sound fiscal management is an integral part of the larger planning, management, and performance framework of the Fire Department. Fiscal management is calibrating the use of resources with the citizens' perceptions of need. It also is effectively managing the financial resources allocated to the Department to ensure that its mission is carried out and objectives achieved.

The fiscal planning process should include all stakeholders, especially City officials who are responsible to the taxpayers for how their money is spent. During the site visit, it was

mentioned several times that one of the biggest complaints about the Department is their inability to accurately project needs in the budgetary process, and then spring “must have right now” items on the City Council. With some good planning and foresight, the Department should be able to look ahead and accurately forecast what their budgetary requirements will be in coming years.

It is fully acknowledged and understood that a majority of the recommendations in this report have fiscal implications. It is also understood that in any jurisdiction, regardless of its size and wealth, that there are many needs and competition for limited resources. This is why it is so vitally important that as many of the stakeholders in the community be involved in the planning process. Ultimately it is up to the citizens and taxpayers to determine what quality and level of service they desire from the Fire Department, or any other City department or agency. This decision then helps guide policy makers on how much funding can be devoted to the various needs.

A review of the Department’s fiscal year 2006 budget indicates that a total of \$1,575,000 was appropriated. Personnel Services accounted for the majority of this amount at \$1,496,808. An additional \$106,000 was budgeted for overtime expenditures. The capital equipment amount was \$65,000 in matched grant funding for the purchase of new radios. \$78,192 was allocated for ordinary maintenance.

Based on information supplied, there does not seem to be any type of annual apparatus, facility, or equipment evaluation and replacement budgeting plan. Instead, the Department seems to take a reactive approach to these situations. It is recommended that a detailed fire station, apparatus, and equipment replacement program be developed, to ensure that funding is available to replace older apparatus and equipment, and to provide for building repairs and/or renovations on an annual basis.

It is recommended that the Fire Department establish an internal budget committee comprised of personnel representing all components of the Department. This committee would be tasked with meeting on a regular basis to discuss, prioritize, and justify budget requests, and then to assist the Fire Chief in the Department’s annual budget submission.

It is recommended that the Fire Department and City leadership establish a joint task force to research and apply for grants that will assist in funding initiatives. These grants could provide for staffing, apparatus, and equipment that could not otherwise be funded or secured.

In particular, three Federal programs that should be closely scrutinized are the Assistance to Firefighters Grant (AFG), the Staffing for Adequate Fire and Emergency Response (SAFER), and the Fire Prevention and Safety (FP&S) grants, administered by the Department of Homeland Security’s Directorate’s Office of Grants and Training. These programs use a peer review process to ensure that federal funds go to the fire departments that demonstrate the greatest need. The grants program is conducted in cooperation with the United States Fire Administration.

The AFG program provides matching funds for fire departments to purchase equipment and training. Grants are awarded on a competitive basis to applicants that address AFG program priorities, demonstrate financial need, and demonstrate the benefit to be derived from their projects.

The purpose of the SAFER grants is to award grants directly to volunteer, combination, and career fire departments to help the departments increase their cadre of firefighters. Ultimately, the goal is for SAFER grantees to enhance their ability to attain 24-hour staffing, thus assuring their communities have adequate protection from fire and fire-related hazards. The SAFER grants have two activities that will help grantees attain this goal: 1) hiring of firefighters and 2) recruitment and retention of volunteer firefighters.

The hiring of firefighters involves a five-year grant to assist fire departments pay a portion of the salaries of newly hired firefighters. These newly hired positions must be in addition to authorized and funded active firefighter positions. Grantees must do everything in their power to maintain the number of authorized and funded positions, as declared at the time of application, plus the awarded new firefighter positions throughout the period of performance (five years). Grantees that fail to maintain this level of staffing risk losing all or a portion of their grant.

Volunteer, combination, and non-profit career fire departments are all eligible to apply for assistance in hiring new firefighters. These grants require the awardees to match an increasing proportion of the salary over a four-year period; in the fifth year of the grant, the awardees must absorb the entire cost of any positions awarded as a result of the grant.

The Recruitment and Retention of Volunteer Firefighters Activity provides assistance to awardees for periods of up to four years. The purpose of these grants is to assist with the recruitment and retention of volunteer firefighters. Volunteer departments, combination departments and local or statewide organizations that represent the interests of volunteer firefighters are eligible to apply for assistance under this activity.

The FP&S grants are used to attempt to reduce the high incidence of civilian fire deaths and injuries with public educational programs. The primary goals of the FP&S grants are to reach those groups that experience a high incidence of death and injuries.

Previously, the Department has received grant funds from the Massachusetts Department of Fire Services and the United States Department of Agriculture. These grant programs should also continue to be explored and utilized whenever possible.

The City has an obligation to provide the Fire Department with regular and accurate financial records and reports. If the Fire Chief is to be held accountable for managing the budget, then effective budget reporting and accounting methods must in place.

The fee schedule utilized by the Fire Prevention Division was expanded and revised in August of 2005. New fees were established in 12 new areas. It is recommended that as part of the annual budget preparation, this fee schedule be reviewed and amended as required. The current fee schedule appeared to be appropriate for the services provided.

It is recommended that the City increase the Department's computer and management information system. Sufficient budget allocations will allow for the purchase of additional computers and fire service related software packages. Providing this management tool will allow for the development of needed data bases for items such as: training, personnel, protective clothing, target hazard and preplan information, fire hydrants, apparatus

maintenance and repair, vehicle accidents, injury and health data, budget data and summarizing, and analyzing annual activity.

Records should be maintained to satisfy legal requirements for state, and federal agencies, as well as to provide the database from which management reports can be generated. Information should be collected so that it satisfies the requirements and provides useful data for decision-making. Reports are essential for providing an accurate record of the Department's activities. They also serve as a basis for determining local, state, and national fire trends and for establishing needs.

It is recommended that the Department provide an annual report on available programs and services, incident activity, training completed, public education activities conducted, etc. in the previous year. This report should be provided to City administrators, the City Council, the Public Safety Commission and the public at large.

Personal Protective Equipment

An assessment of the Personal Protective Equipment (PPE) utilized by the Greenfield Fire Department was conducted during the site visit. In general, the PPE appeared to be clean, but was only in fair condition. It was reported that number of personnel were currently using worn and damaged protective clothing.

Many facets are involved in protecting firefighters from the hostile work environment that they operate in. Thorough training, good physical conditioning, adequate staffing, quality supervision, incident command, and state-of-the-art PPE, that is consistently and properly used, are all vital in minimizing firefighter injuries and deaths.

The City and the Fire Department have a responsibility to provide for the protection of firefighters with quality and appropriate PPE that is properly utilized and maintained. In the past, the Department has purchased the "lowest bid" PPE available when obtaining new equipment. It is recommended that this practice not continue.

It is recommended that the Department enact an annual replacement program for PPE. Approximately 10 new sets of PPE should be purchased each year. Based on this replacement cycle, each member should receive new PPE every 3-5 years. Not only does this provide personnel with the most advanced and safest PPE available, but it is also good fiscal management to replace some of the PPE every year, versus a large purchase every five years or so.

The life expectancy of PPE varies depending on the specific piece. Helmets, for instance, can last ten years or more, while boots average about two years, and gloves are only good for a year or less. Coats and trousers have an expected life of about five years, based on the national average.

Two styles of footwear are currently in use by Department personnel. One type is the traditional rubber boot style, which is provided by the Department. The other is the more modern leather firefighting boot. It was reported that due to the high cost of providing leather style boots to members, some members have purchased them with their own funds or clothing allowance.

It is recommended that the Fire Department provide leather footwear to all personnel. The benefits to this would be less fatigue, due to the reduced weight of the boots, improved ankle support, a better-fit, greater durability, and improved traction.

It was reported that hearing protection is not provided. Besides the excessive noise generated by power tools, firefighters are routinely exposed to potentially damaging noise levels during emergency responses from sirens, air horns, and engine noise. Obtaining commercially available vehicle intercom systems would provide hearing protection and solve the problem of communicating in high noise environments. It is recommended that the Department provide approved hearing protection for personnel when operating power tools, and other equipment, which generate unsafe levels of noise.

Eye protection is provided to members in the form of goggles or helmet eye shields. It is recommended that the use of the helmet style eye protection be discontinued, as they do not provide adequate shielding. All personnel should be issued safety glasses or goggles. Additional safety glasses and goggles should be carried on all apparatus for personnel who may not have them on the incident scene.

Protective hoods are provided to each member for use during interior firefighting operations. Firefighting gloves, and gloves appropriate for non-firefighting operations, were also provided to personnel. Latex medical style gloves are available on the apparatus, for protection from blood borne pathogens and other body fluids encountered during emergency medical incidents.

There are two primary NFPA Standards used for PPE. They are NFPA 1971 and NFPA 1851. NFPA 1971 – *Standard on Protective Ensemble for Structural Firefighting*, specifies minimum requirements for the design, performance, testing, and certification of the elements of the ensemble for protection from the hazards of structural firefighting operations. NFPA 1971 covers coats, trousers, one-piece suits, helmets, gloves, footwear, and interface items (i.e., protective hoods).

It is recommended that the Fire Department develop, implement, and maintain a protective clothing and protective equipment program. This will provide for the periodic inspection and evaluation of all protective clothing and equipment to determine its suitability for continued service. Structural fire-fighting protective clothing should be cleaned at least every 6 months as specified in NFPA 1851 - *Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles*.

NFPA 1851 specifies requirements for the selection, care, and maintenance of firefighting protective clothing, including coats, trousers, hoods, helmets, gloves, and footwear. The requirements cover inspections, cleaning and decontamination, repairs, storage, disposal, and record keeping. It was reported that a PPE washing machine was funded and is currently on order to clean the PPE on a routine basis.

The main issues addressed in NFPA 1851 are health, safety and liability. By adhering to the requirements and policies set out in this standard, the Fire Department will reduce safety risks and potential health hazards related to PPE. By complying with the first two issues of health and safety, the issue of liability will be greatly reduced or eliminated. In summary, NFPA 1851 states that: "The program shall have the goal of providing structural firefighting protective ensembles and ensemble elements that are suitable and appropriate; maintaining them in a safe, usable condition

and removing from use elements that could cause or contribute to user injury, illness, or death because of its condition, and reconditioning, repairing or retiring such elements."

Routine inspections of PPE should be carried out by each Department member after each use, if exposed to contamination or damaged. All ensemble elements should be inspected for soiling, contamination, physical damage or missing parts, thermal damage, shrinkage, and loss of water resistance, elasticity and flexibility. Advanced inspections should be carried out by the safety officer. These advanced inspections need to be conducted at least once a year, and documented on an inspection form. Ensemble elements should be graded into one of four groups:

- New or like new condition
- Good condition
- Maintenance needed
- Immediate replacement

The importance of maintaining the cleanliness of the PPE should not be underestimated. Soiled or contaminated elements are a hazard to firefighters, since soils and contaminants can be flammable, toxic or carcinogenic. Clean elements offer better protection and can add to the life expectancy of the PPE. Cleaning is broken down into three types: routine, advanced, and specialized.

It is recommended that all PPE purchased meet the most recent version of NFPA Standards to increase safety and reduce liability. The Department should strive to accurately document their PPE purchases, allocation to personnel, cleaning, repair history, etc. This record-keeping effort will benefit the Fire Department when it comes time to budget for and justify their PPE needs.

To accomplish the goals mentioned above, SOPs need to be established defining the roles and responsibilities for both the Fire Department and personnel concerning PPE replacement/upgrades, use, inspection, and maintenance. Consideration should also be given to purchasing "spare" PPE for members to use in the event their regularly assigned PPE is not available due to cleaning or repair.

The Self-Contained-Breathing-Apparatus (SCBA) in use by the Department appeared to be up-to-date and appropriate for use in structural firefighting, and other operations requiring respiratory protection. Currently, the Fire Department maintains minimal inspection and maintenance records for the SCBA. Accurate and complete inspection and maintenance records are critical. It is recommended that the Department establish an SOP specifying the requirements for inspection, maintenance and record keeping for their SCBA.

It is recommended that the Department follow the guidelines in NFPA Standard 1852 - *Standard on Selection, Care, and Maintenance for Open-Circuit Self-Contained Breathing Apparatus*. This standard covers the selection process for purchasing new SCBA, and the inspection, cleaning, care, and repair of SCBA. It is strongly recommended that the SCBA be tested and serviced regularly by a trained and certified SCBA technician.

It is recommended that the SCBA face-piece seal capability be verified by fit testing on an annual basis. Fit testing should also occur when new types of respiratory protection equipment or face-pieces are issued.

An SOP should be established concerning the use of Personal Alert Safety Systems (PASS) devices. The PASS device is imperative in situations that could jeopardize firefighter safety, due to dangerous atmospheres, entrapment or structural collapse, or when directed by the incident commander or safety officer. PASS devices should meet the requirements of NFPA 1982 - *Standard on Personal Alert Safety Systems*. Each PASS device should be tested at least weekly and prior to each use, and should be maintained in accordance with manufacturers' instructions.

Maintaining communications with the incident commander and dispatch center is a critical component of the firefighter's protective envelope. It was reported that in some circumstances some personnel, especially call force personnel, did not have radios available to them while they were operating in a hazardous environment. It is strongly recommended that portable radios be available to all personnel operating in a hazardous environment or dangerous situation.

APPARATUS

A brief assessment of the Department's apparatus was completed during the site visit. The apparatus appeared to be clean, and appropriate for its purpose. The quantity and type of apparatus was comparable with that of other Departments protecting similar sized communities. The quantity and type of tools and equipment carried on the apparatus should comply with the recommendations found in NFPA Standard 1901 - *Standard for Automotive Fire Apparatus*.

NFPA 1901 deals with the design, performance, functions, and components of most fire apparatus. The Standard is broken down into chapters that address the requirements for the different types of apparatus, as well as requirements for many of the components installed on the apparatus.

Listed below is the apparatus compliment of the Department as of November 2005:

- Engine 1: 1976 Maxim 750 tank, 1000 gpm pump
- Engine 2: 1988 Pierce Lance, 750 tank, 1250 gpm pump
- Engine 3: 1993 Pierce Dash, 750 tank, 1250 gpm pump
- Engine 5: 2002 Pierce Contender, 750 tank, 1250 gpm pump
- Tower 1: 2000 Pierce Lance, 105' tower 2000 gpm pump
- Rescue 1: 2000 Pierce International Heavy Rescue
- Car 1: 2000 Ford Crown Vic
- Car 2: 2000 Chevrolet Blazer
- Brush 1: 1988 GNC ¾ ton
- Communications: 2000 Ford 350

The City and Fire Department have a responsibility to provide safe apparatus and equipment for its personnel to safely perform their responsibilities to the community. The apparatus

should be compliant with national standards and should also adhere to any state and local requirements. Failure to adhere to recognized safety standards jeopardizes the safety of the firefighters. Moreover, it puts the community at risk and creates a high risk of potential liability.

Budget records indicate that maintenance expenditures for the repair and maintenance of vehicles has been severely under funded in previous years. In fiscal year 2005 only \$5,000 was appropriated for this item. Fortunately this amount was increased in fiscal year 2006 to \$12,483. Fire apparatus has become increasingly more complex and attention to preventive maintenance cannot be neglected. Apparatus safety should be the primary objective of any fire department's preventive maintenance program. The importance of providing safe and operationally effective fire apparatus can not be overemphasized.

It is recommended that the maintenance and repair budget continue to be adequately funded and that the maintenance and repair of fire apparatus be conducted in accordance with NFPA 1915 - *Standard for Fire Apparatus Preventive Maintenance Program*. This Standard defines the minimum requirements for fire departments to establish a preventive maintenance program.

It is recommended that the Fire Department establish an SOP concerning the regular inspection and maintenance of apparatus. The SOP should include criteria for placing the vehicle out of service if required.

It is further recommended that only properly trained and qualified personnel conduct the Department's maintenance program. NFPA 1071 - *Standard for Emergency Vehicle Technician Professional Qualifications*, should be utilized for this purpose. This Standard defines the minimum job performance requirements for an emergency vehicle technician. It is the responsibility of the City and Fire Department to assure that all vehicles are maintained by qualified mechanics.

Due to a lack of funding, the Department has not had the aerial device, pumps, or ground ladders tested as specified in NFPA standards. Records of service tests are important evidence of proper apparatus maintenance.

It is recommended that the Department receive funding annually to test the pumps as specified in NFPA 1911 - *Service Tests of Fire Pump Systems on Fire Apparatus*. This Standard outlines the procedures for the pump testing. Annual pump testing does more than verify pressure and flow ratings and identify problems with the pump, it also helps maximize the points earned during the ISO fire suppression rating process.

It is recommend that the Department receive funding annually to inspect and test the aerial device and ground ladders as specified in NFPA standards. NFPA 1914 - *Standard for Testing Fire Department Aerial Devices*, specifies the inspection and testing of all fire apparatus equipped with an aerial ladder, an elevating platform, or a water tower. NFPA 1932 - *Standard on the Use, Maintenance, and Service Testing of Fire Department Ground Ladders*, calls for service testing ground ladders at least annually, or at any time the ladder is suspected of being unsafe.

The current quantity of ground ladders carried on the Tower Ladder is dangerously insufficient. In densely developed areas, like downtown Greenfield with numerous multiple story buildings, the availability of ground ladders to rescue trapped citizens and conduct other firefighting tasks can make the difference between life and death. It is strongly recommended that additional ground ladders be purchased for the Tower Ladder as soon as possible.

NFPA 1901 deals with the design, performance, functions and components of most fire apparatus. Significant changes in this Standard in recent years have resulted in dramatic new safety improvements in fire apparatus. The Fire Department should use applicable NFPA Standards in the purchasing, operating and maintenance of all apparatus.

The current life expectancy of first line apparatus will obviously vary from jurisdiction to jurisdiction, based upon the amount of use the apparatus receives and the adequacy of the maintenance program. General guidelines currently recommend a 10 to 15 year life expectancy for a first line pumper. Obviously a higher level of responses would decrease this to the 7 to 9 year range. Aerial apparatus should have a normal life expectancy of 12 to 15 years. Every vehicle has a finite life. After many years of service, a vehicle starts to require more maintenance, parts get harder to find, and its performance begins to decline when compared to newer vehicles.

The latest edition of NFPA 1901 has a new section, Annex D, which provides guidelines for upgrading and replacing older apparatus. It recommends that all first line apparatus should meet, or be refurbished to meet, the requirements of the 1991 or newer editions of NFPA 1901. As for apparatus built to comply with the 1979 or 1985 editions of NFPA 1901, the Annex recommends that they be upgraded immediately to include as many of the 1991 edition requirements as possible, and then placed in reserve. Finally, apparatus not built to NFPA 1901 Standards, or built prior to 1979, should be upgraded immediately or replaced.

The current inventory of apparatus indicates that Engine 1, the 1976 Maxim, and Engine 2, the 1988 Pierce Lance, were manufactured prior to 1991. It was reported that Engine 1 requires numerous repairs in order to pass annual inspection and comply with Massachusetts motor vehicle ordinances.

The City and Fire Department should be aware of potential legal issues that could affect the decision-making process concerning the operation of in-service apparatus. NFPA 1901 Annex D is not mandatory; however, it does establish a new reference point for age of apparatus and updating guidelines. To knowingly operate, or approve of the operation of, a vehicle that could injure the public or a firefighter, severely exposes the Fire Department and City to liability. It is important to understand the legal responsibilities of operating vehicles that do not meet NFPA Standards or local laws and ordinances.

It is recommended that the Department provide apparatus intercom/radio system headsets. This recommendation accomplishes several goals. It provides hearing protection, which is currently not provided in any manner, for personnel while riding in the apparatus, and it allows for improved communication between the officer and personnel. It also enhances the ability of personnel to hear critical radio communications pertaining to the emergency incident they are responding to.

Fire Station

Fire stations are unique buildings in a municipality. Unlike most structures that are used as offices, schools, or meeting halls, fire stations are in use and occupied 24 hours a day, every day of the year. These stations serve a dual purpose. First, they are the emergency response headquarters for firefighters who protect the community. Just as important, the fire stations are "home away from home" for the firefighters who stand ready to respond to a wide variety of emergencies during many hours on duty.

Ensuring that a fire station is safe and well maintained is critical. This requires both a commitment from the City to provide the necessary funding and from the Department to properly maintain the facility. The Fire Station should be an example to the community of a well maintained facility with a safe and healthy work environment.

It is recommended that the City and Fire Department ensure that an inspection of the fire station be conducted at least annually. The City and Department should then take prompt action to correct any safety and health hazards or code violations that are noted. It is also recommended that the Fire Department ensure that the station is routinely maintained in a manner that provides for a clean, healthy, and safe environment for the firefighters.

One of the primary goals of a fire department is to promote safety and fire prevention measures in the community. When it comes to compliance with these fire prevention practices and regulations, the fire station should be held to a higher level of standard than any other structure in the community. It should serve as the benchmark for good housekeeping practices, and adherence to all fire prevention ordinances and safety standards. This is not the case in Greenfield.

U.S. Fire Administration injury statistics show a significant number of injuries occur away from the emergency incident scene. Many of these injuries and deaths occur where they would be least expected. Fire department facilities are rarely looked at in terms of their potential safety and health hazards. Yet according to U.S. Fire Administration fatality summaries over a 12 year period prepared by the NFPA, a total of 17 firefighters have died at fire stations from causes other than cardiovascular deaths.

At least two of the firefighters died in a hose tower accident while hanging wet hose. Hose tower ladders are known as a common fall hazard that can result in traumatic accidents. There are safety regulations which address proper fall protection requirements. During the site visit to Greenfield, the ladder in the hose tower was identified as a significant safety hazard. Since the site visit, Chief Cogswell has placed the hose tower out of service and modifications are currently underway to make it a safe work environment.

It is highly recommended that the broken and deteriorating asbestos floor tiles be removed and replaced immediately. Airborne asbestos particles are a carcinogen. Strong consideration should also be given to prohibiting access to all personnel and visitors in this area until the necessary renovations and repairs are made.

It is recommended that the repair of leaking wall and roof assemblies be a priority. It was stated that these leaks have already accessed, and possibly compromised, other building

systems and components. Repairing this deficiency before any further damage occurs makes good fiscal sense.

It is recommended that the over 20 year old station telephone system be replaced as soon as possible. The current system is unreliable, prone to breakdown, difficult to maintain and repair, and very costly to operate. A modern telephone system will not only provide better service for the public, but also more efficient communications with other City departments and agencies.

It is recommended that Carbon Monoxide (CO) detectors be installed in all living areas of the fire station immediately. The Fire Department provides and installs CO detectors in the community, but does not have any in its own building. This is a safety hazard to personnel that can be easily and inexpensively corrected. In November of 2005, Massachusetts established a new regulation concerning carbon monoxide detectors known as “Nicole’s Law”. The new regulation requires carbon monoxide detectors on every level in buildings with fossil-fuel burning equipment or enclosed parking areas, and within ten feet of each sleeping area and in habitable portions of basements and attics.

The United States Fire Administration recommends that all fire stations be equipped with automatic sprinkler systems.

It is recommended that the current steam heating system be replaced with a more cost effective and efficient hot water heating system. During the site visit, it was noted that there were several areas in the station where the heating system thermostats were not operating properly. It is recommended that these be repaired.

It is recommended that the Department develop an SOP and designate a specific area in the fire station for cleaning the medical equipment, and other items, that may become contaminated on medical incidents.

NFPA 1581 - *Standard on Fire Department Infection Control Program*, addresses the provision of minimum requirements for infection control practices within a fire department. The purpose of the standard is to provide minimum criteria for infection control in the fire station, on fire apparatus, at the incident scene, and at any other area where fire department members are involved in routine or emergency operations. Consideration of infection control measures should be applied to bathrooms, kitchens, sleeping areas, laundry facilities, equipment storage areas, cleaning areas, disinfection facilities, and disposal areas.

It is recommended that the Department purchase a clothes washer and dryer for personnel to launder work clothing that may become contaminated at incidents. An important factor in infection control, cleaning and disinfection of equipment and clothing should be performed in the proper area and on a regular basis, and/or immediately following an exposure incident. Under no circumstances should contaminated equipment or clothing be taken home for cleaning.

It was reported that the “guard” doors around the sliding poles do not operate properly and are in need of repair. It is recommended that these safety doors be repaired to prevent

personnel from inadvertently falling to the floor below. It is further recommended that the Department give consideration to discontinuing the use of the poles. Many fire departments across the nation have discontinued the use of poles due to the high rate of injuries.

It is recommended that the Department plan for renovating the fire station to provide for:

- A designated contemporary style training room for conducting classes and critiques
- A physical fitness area for personnel to conduct physical fitness training. The current universal gym is located in the basement parking garage area, and is not a suitable location for conducting fitness training.
- A designated office area for the Group officers where they can conduct planning, complete employee performance evaluations, complete reports and memorandums, and conduct private meetings and guidance sessions with their personnel

Many fire stations in use today were planned and built with a single-gender workforce in mind. The Greenfield Fire Station is such a building. Many of these buildings are now being used by a workforce that includes both women and men. Not surprisingly, this can result in inadequacies that are a source of inconvenience, discomfort, embarrassment, and friction for all concerned.

The Greenfield Fire Department currently has women personnel. The current fire station does not provide adequate restroom, locker room, and shower facilities for these women. It is very highly recommended that the Department provide separate and private bathroom, bunkroom, and locker and shower facilities for men and women as soon as possible. Until separate facilities can be provided, the Department should immediately establish policies and procedures to ensure for the privacy of both men and women.

Inadequate female facilities can lead to problems with morale and job performance, and an increase in the occurrence of harassment lawsuits. In other jurisdictions, discrimination lawsuits have been filed due to inadequate facilities.

Presently, the Fire Department does not have a standardized policy that addresses the provision and use of fire station facilities (bunkrooms, showers, and restrooms) by different genders. It is highly recommended that the Fire Department adopt a policy for the provision and use of these facilities for all personnel. The Department should also include training on the policy as a component of its overall training program on discrimination and sexual harassment of employees. The training should emphasize that the goal is to insure that the privacy needs of all employees, call-force members, and visitors, are respected.

It is recommended that the Department establish a committee, including both male and female employee representatives, to evaluate the design and condition of the bathroom, shower, and bunkroom facilities, and to provide recommendations for any renovation of the fire station. The committee should consider options designed to maximize the privacy provided to employees, while also considering the costs and impact on the project budget for each option.

Providing a safe and healthy workplace is a responsibility of the City and Department. The benefits include reduced liability for the City and the Department, as well as increased morale for Department personnel who work and “live” in the fire station.

Pre-incident Planning

Pre-incident planning is a vital fire department function that minimizes the potential for the loss of life and property. A “target hazard” is defined as an occupancy that presents the potential for a large loss of life, property, infrastructure, or environmental impact from fire or other event, and that resulting loss would significantly impact the economy of the community. A significant number of target hazards exist in the response area of the Greenfield Fire Department. No program for identifying target hazards or developing pre-incident plans has previously been in place.

Examples of target hazards that exist in Greenfield include: a large hospital, a senior citizen’s high rise building, bulk petroleum facilities, several nursing homes, a community college, several large commercial occupancies, industrial facilities, and a freight railroad right-of-way that goes through the center of the downtown business district.

Recently, the Fire Chief initiated a program to identify target hazards and develop pre-incident plans. It is strongly recommended that this program continue, and that NFPA Standard 1620 - *The Recommended Practice for Pre-Incident Planning*, be followed.

When developing pre-incident plans, strong consideration should be given to the following issues:

- Potential life safety hazard
- Structure size and complexity
- Value
- Importance to the community
- Location
- Presence of chemicals
- Susceptibility to natural disasters

When developing these plans, personnel should regularly visit the property to become thoroughly familiar with its layout, contents, construction, and fire protection system features. The pre-incident plan should be the foundation for decision-making during an emergency situation, and provide important data that will assist the incident commander in developing appropriate strategies and tactics for managing the incident.

The incident commander should develop tactical options based on the pre-incident plan. The incident commander should consult the pre-incident plan throughout the emergency to remain aware of factors that might affect the success of the operation and the need for strategic or tactical adjustment.